U.S. Department of the Interior
Bureau of Land Management

December 2025

Montana/Dakotas State Office
5001 Southgate Drive
Billings, Montana 59101

Greater Sage-Grouse Rangewide Planning

Record of Decision and Approved Resource Management Plan Amendment for Montana and the Dakotas

Appendix 1

Table and Maps

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Appendix 1. Table and Maps

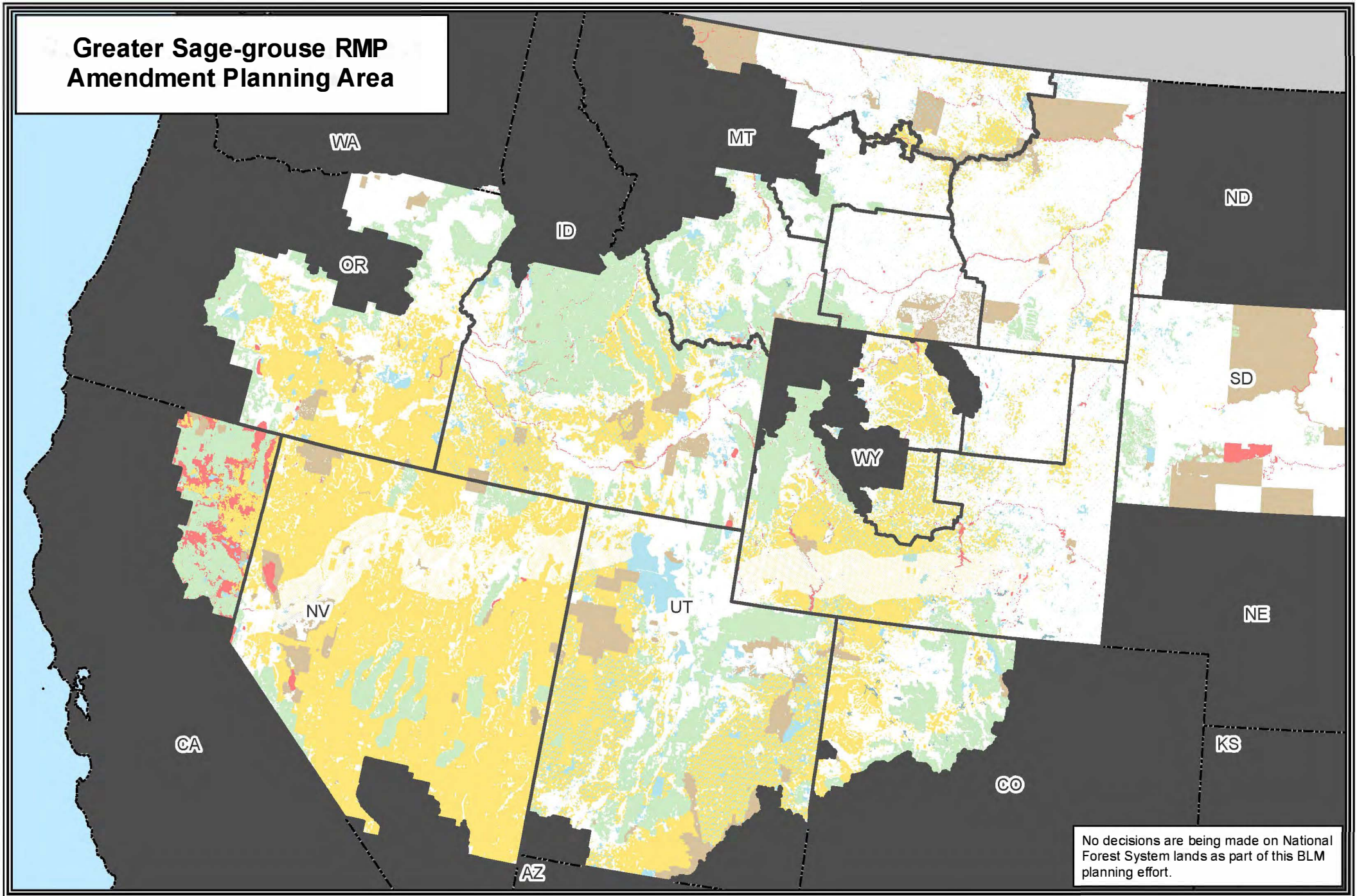
TABLE 1. HABITAT MANAGEMENT AREA ACREAGE.

Acreage includes BLM administered surface acres (BLM Surface) and BLM administered subsurface acres where the subsurface acreage is overlaid by non-BLM surface (BLM Split-estate).

Habitat Management Area[1]	BLM Surface	BLM Split-estate
Priority Habitat Management Area (PHMA)	3,233,000	1,855,000
General Habitat Management Area (GHMA)	1,932,000	3,685,000
Little Missouri Habitat Management Area (LMHMA)	53,000	141,000
South Carter Habitat Management Area (SCHMA)	37,000	29,000
Connectivity Habitat Management Area (CHMA)	298,000	78,000
Total[1]	5,553,000	5,834,000

[1] Area calculated in US Survey Acres (rounded to nearest thousand) in the North American Datum of 1983 Albers Equal Area Conic projected coordinate system.

Greater Sage-grouse RMP Amendment Planning Area



Map 1

Legend

- Planning Area Extent
- State Boundaries
- Bureau of Land Management
- US Forest Service
- Other Federal Lands
- State
- Private
- Local Government
- Other / Unknown

N W E S

0 25 50 100 Miles

No warranty is made by the Bureau of Land Management (BLM). The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

Map 2. Montana/Dakotas Planning Area

2025 Montana/Dakotas Approved RMP Amendment

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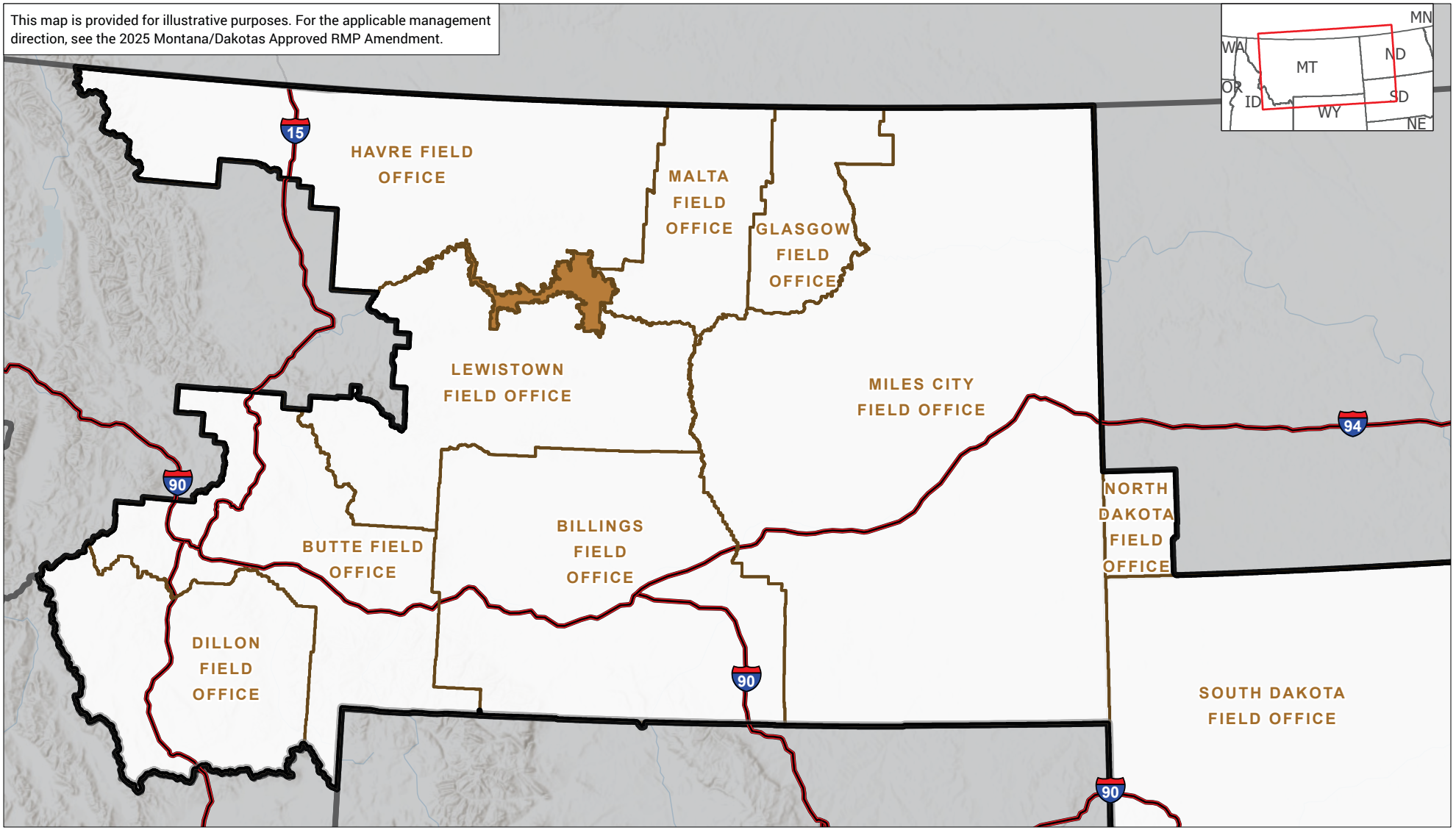
This map is provided for illustrative purposes. For the applicable management direction, see the 2025 Montana/Dakotas Approved RMP Amendment.



BLM Montana Dakotas GRSG RMPA Planning Area
Upper Missouri River Breaks National Monument
BLM Administrative Unit Field Office Boundary
U.S. State Boundary

N

0 10 20 30 40 50 Miles
0 20 40 60 80 100 Kilometers

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Map 3. Decision Area in Greater Sage-Grouse Habitat Management Areas

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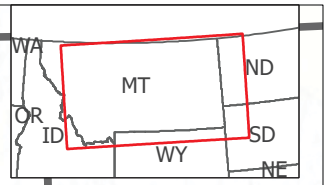

NORTH DAKOTA

MONTANA

IDAHO

WYOMING

SOUTH DAKOTA

90 15 90 94 90

Bureau of Land Management (BLM) Surface Estate
Split Estate
Habitat Management Areas Outside Decision Area

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 4. Greater Sage-Grouse Habitat Management Areas

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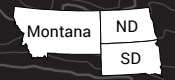

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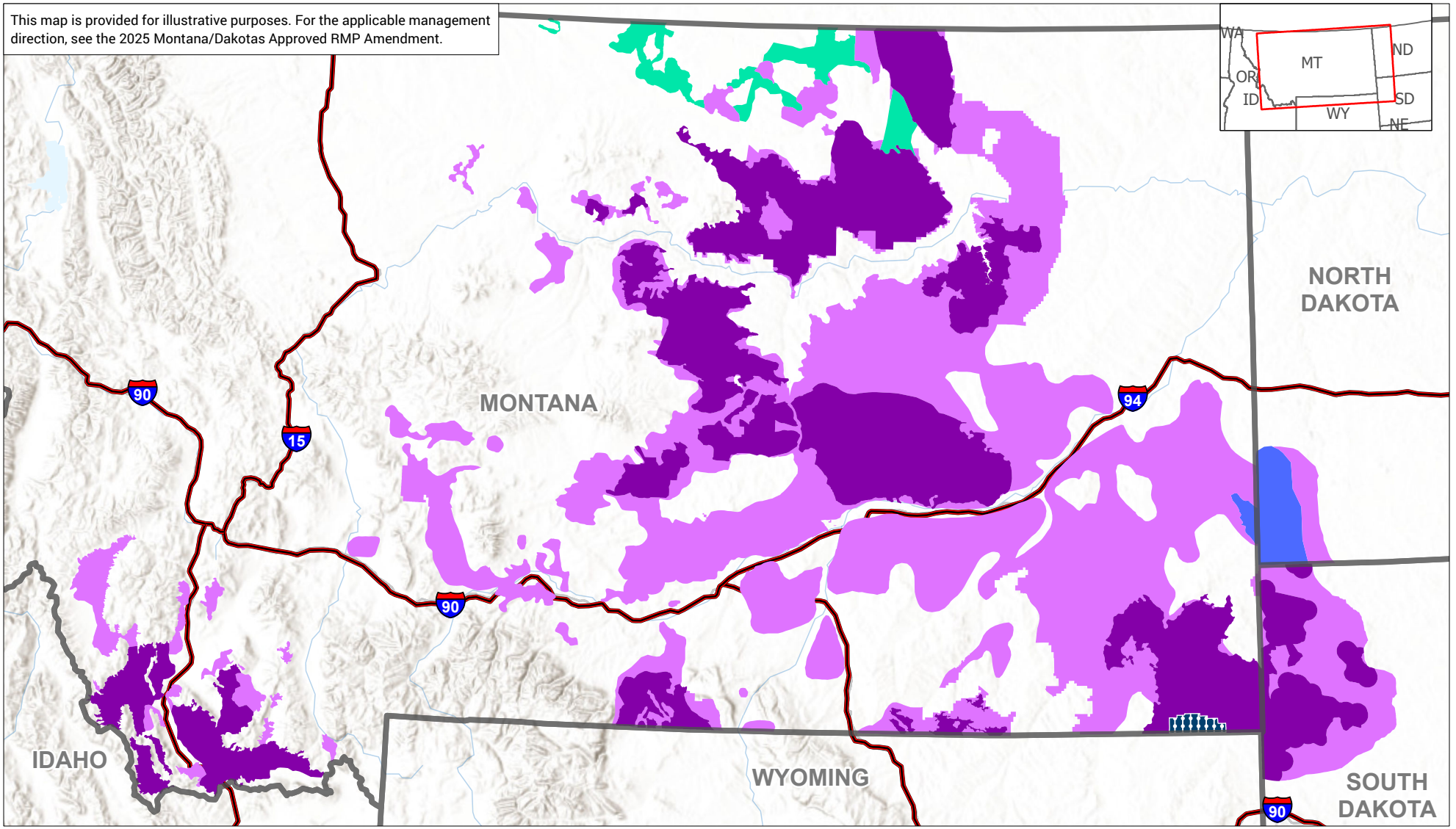

- Priority Habitat Management Area
- General Habitat Management Area
- Little Missouri Habitat Management Area
- South Carter Habitat Management Area
- Connectivity Habitat Management Area
- U.S. State Boundary

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 5. Solar and Greater Sage-Grouse Habitat Management Areas

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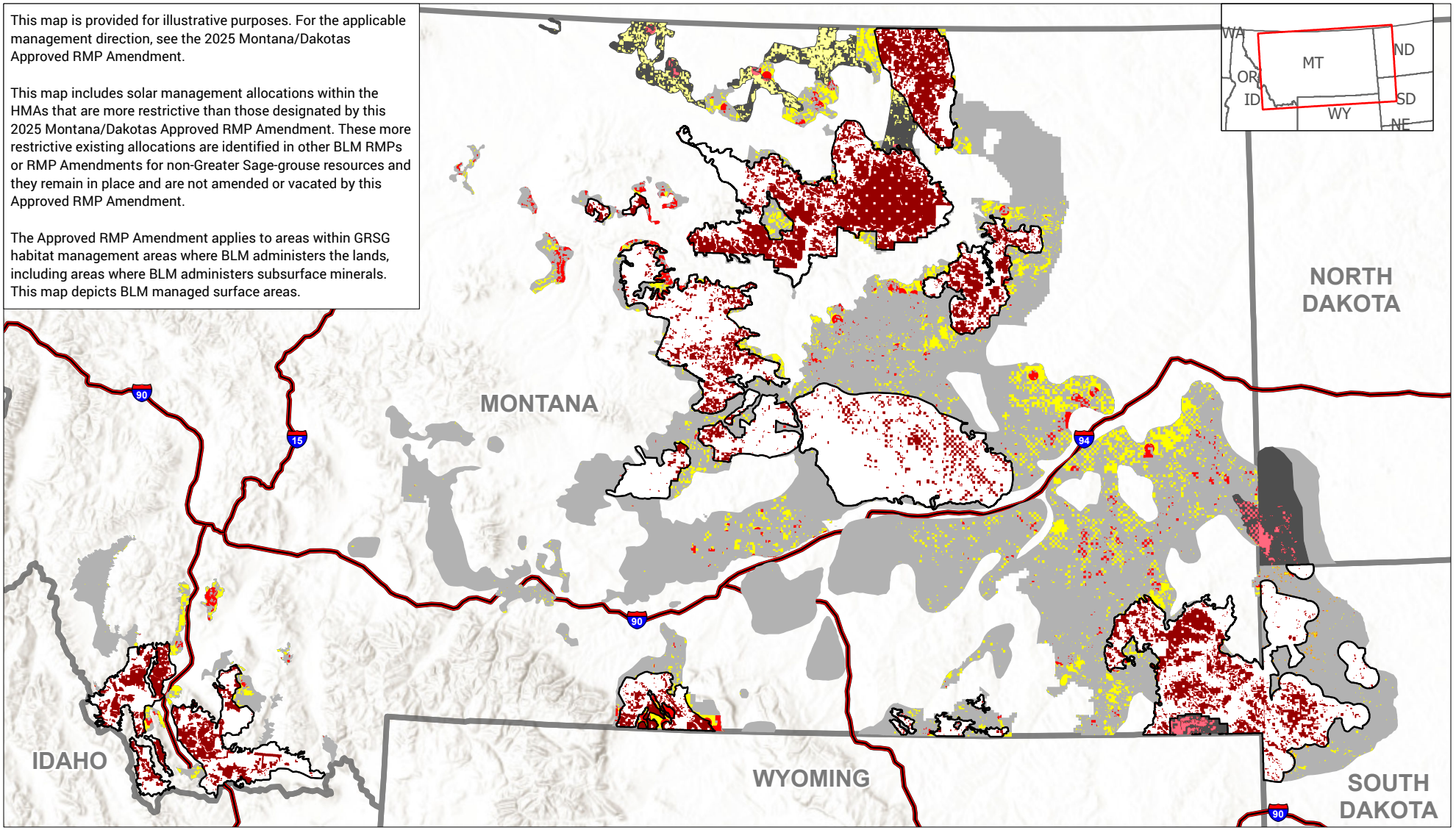
This map is provided for illustrative purposes. For the applicable management direction, see the 2025 Montana/Dakotas Approved RMP Amendment.

This map includes solar management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment.

The Approved RMP Amendment applies to areas within GRSG habitat management areas where BLM administers the lands, including areas where BLM administers subsurface minerals. This map depicts BLM managed surface areas.



PHMA GHMA Unique HMAs

			Solar Energy Management - Exclusion
N/A			Solar Energy Management - Avoidance
N/A	N/A	N/A	Solar Energy Management - Open
			HMAs Outside Solar Decision Area

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 6. Wind and Greater Sage-Grouse Habitat Management Areas

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This map includes wind management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment.

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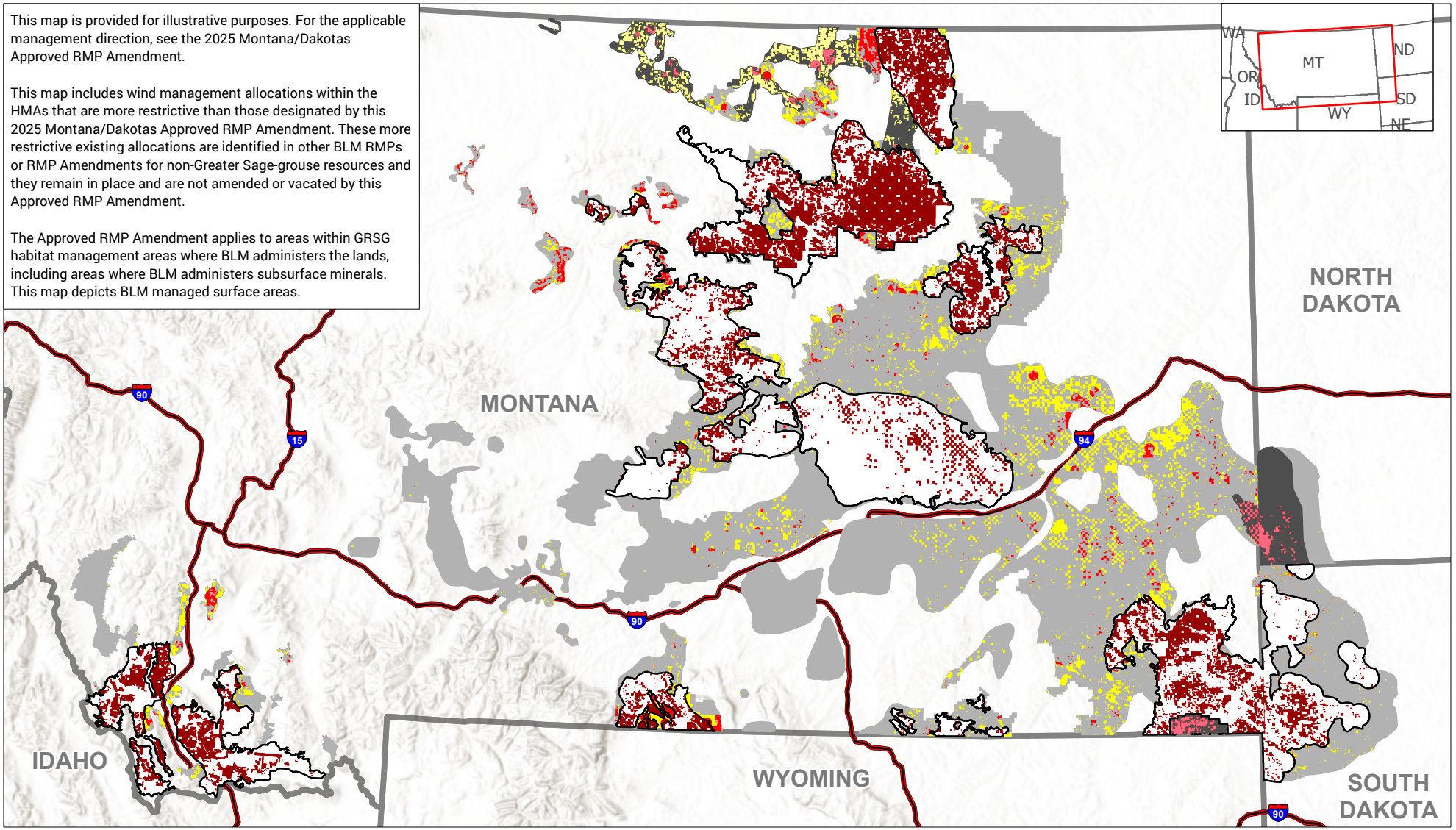

PHMA GHMA Unique HMAs

		Wind Energy Management - Exclusion
N/A		Wind Energy Management - Avoidance
N/A	N/A	Wind Energy Management - Open
		HMAs Outside Wind Decision Area

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 7. Oil and Gas and Greater Sage-Grouse Habitat Management Areas

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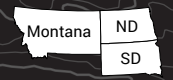
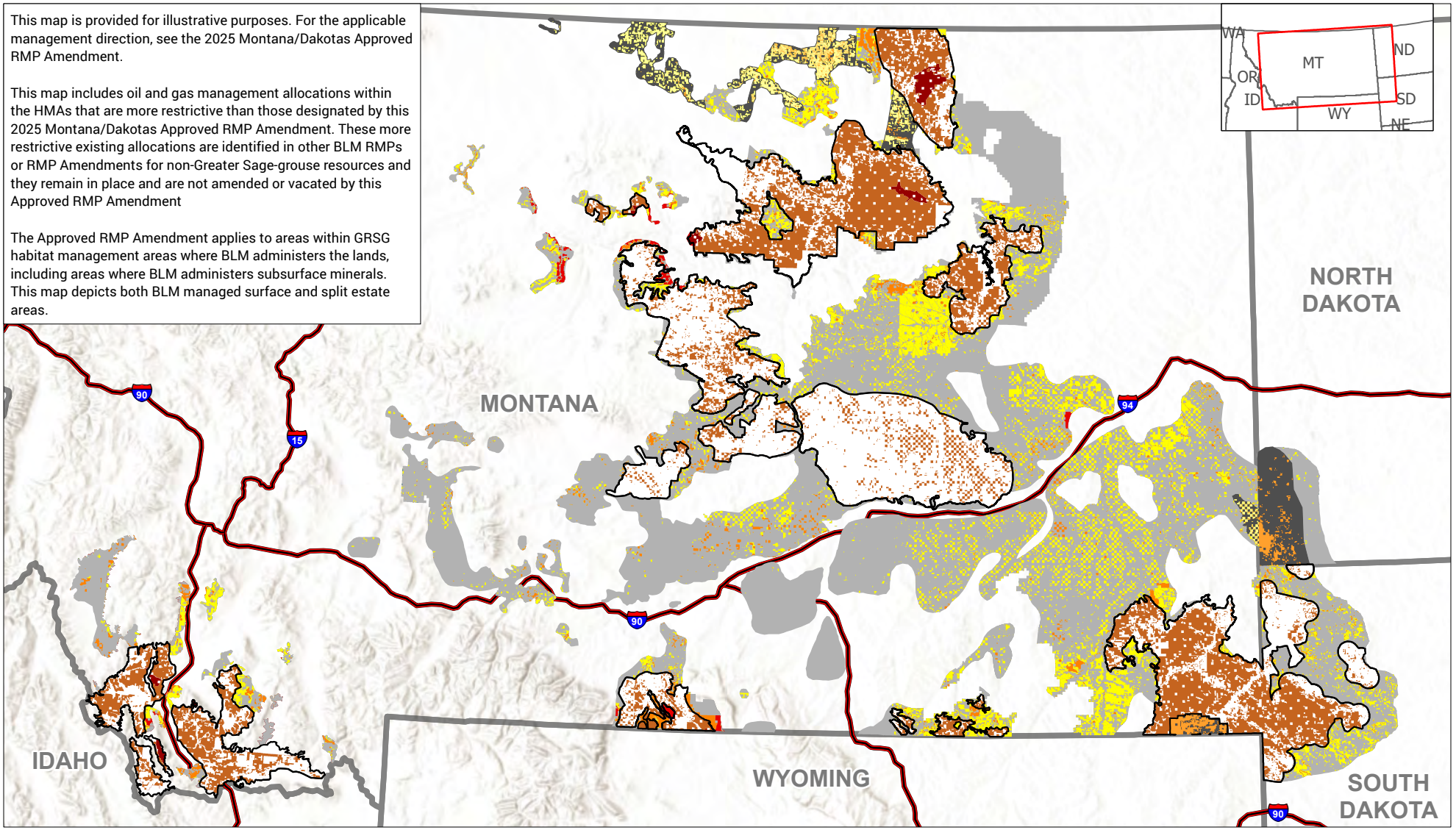


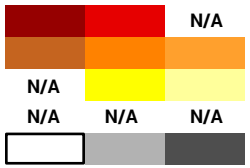
This map is provided for illustrative purposes. For the applicable management direction, see the 2025 Montana/Dakotas Approved RMP Amendment.

This map includes oil and gas management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment

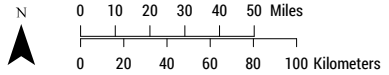
The Approved RMP Amendment applies to areas within GRSG habitat management areas where BLM administers the lands, including areas where BLM administers subsurface minerals. This map depicts both BLM managed surface and split estate areas.



PHMA GHMA Unique HMAs



Oil and Gas - Closed
Oil and Gas - Open Major Stipulations (NSO)
Oil and Gas - Open Moderate Stipulations (CSU and TL)
Oil and Gas - Open Standard Stipulations
HMAs Outside Oil and Gas Decision Area



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Map 8. Geothermal and Greater Sage-Grouse Habitat Management Areas

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This map includes geothermal management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment.

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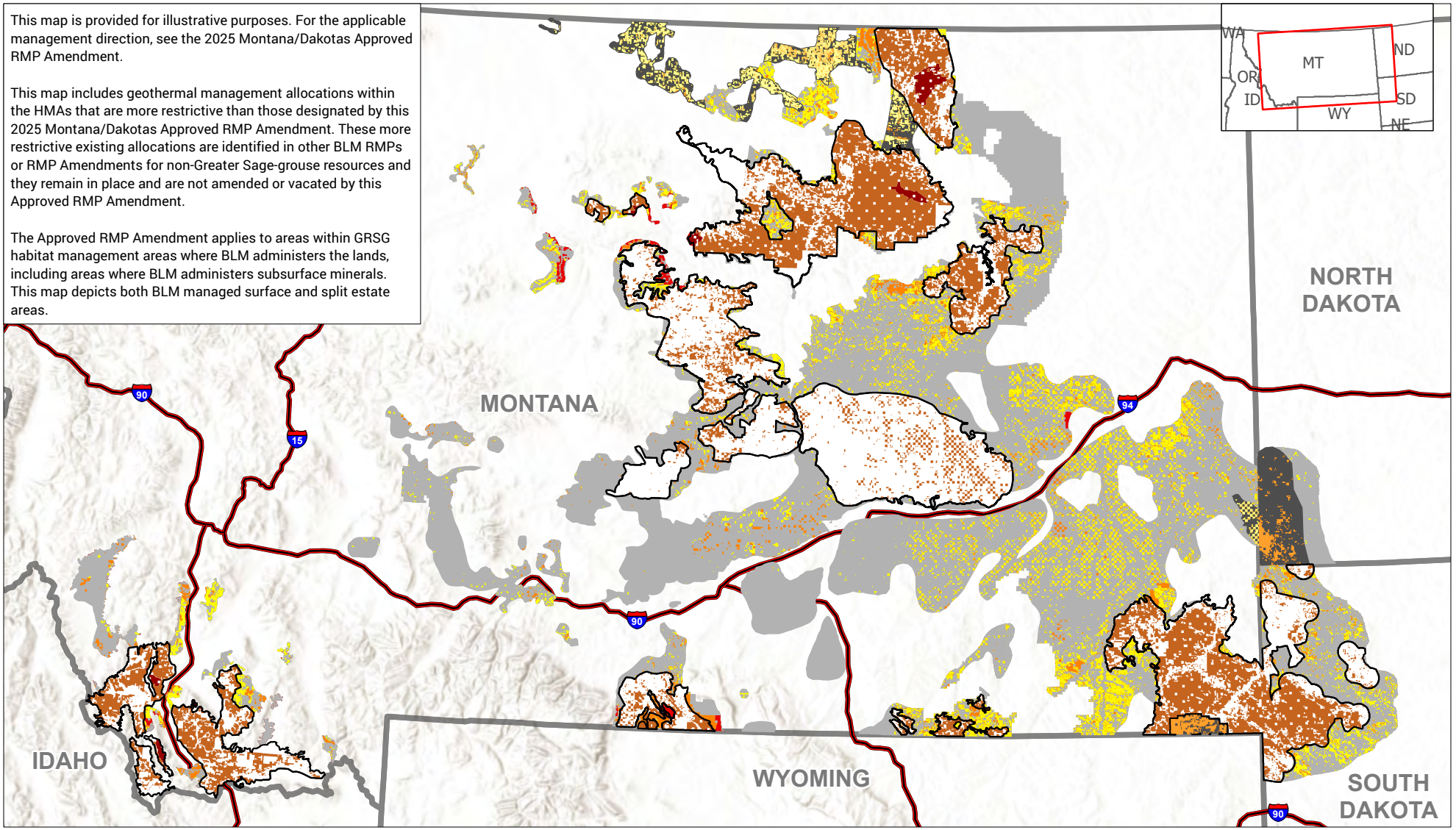
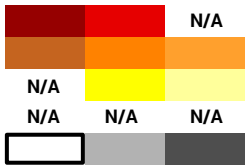
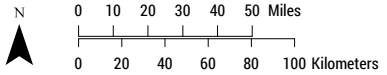


PHMA GHMA Unique HMAs



Geothermal - Closed
Geothermal - Open Major Stipulations (NSO)
Geothermal - Open Moderate Stipulations (CSU and TL)
Geothermal - Open Standard Stipulations
HMAs Outside Geothermal Decision Area



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Map 9. Saleable Minerals and Greater Sage-Grouse Habitat Management Areas

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This map includes saleable minerals management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment

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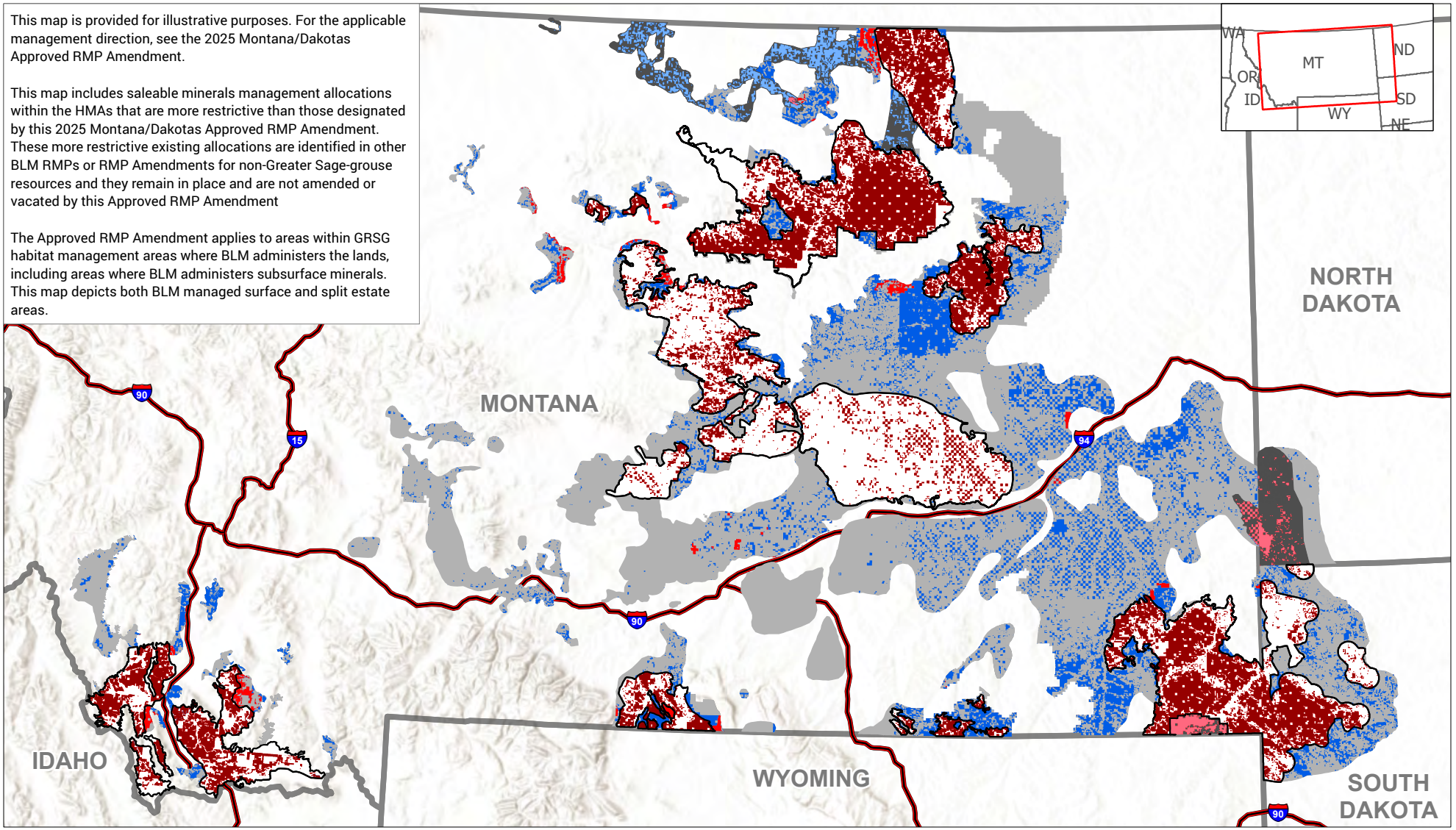

PHMA GHMA Unique HMAs

N/A

Saleable (Mineral Materials) - Closed
Saleable (Mineral Materials) - Open
HMAs Outside Saleable (Mineral Materials) Decision Area

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 10. Non-Energy Leasable Minerals and Greater Sage-Grouse Habitat Management Areas

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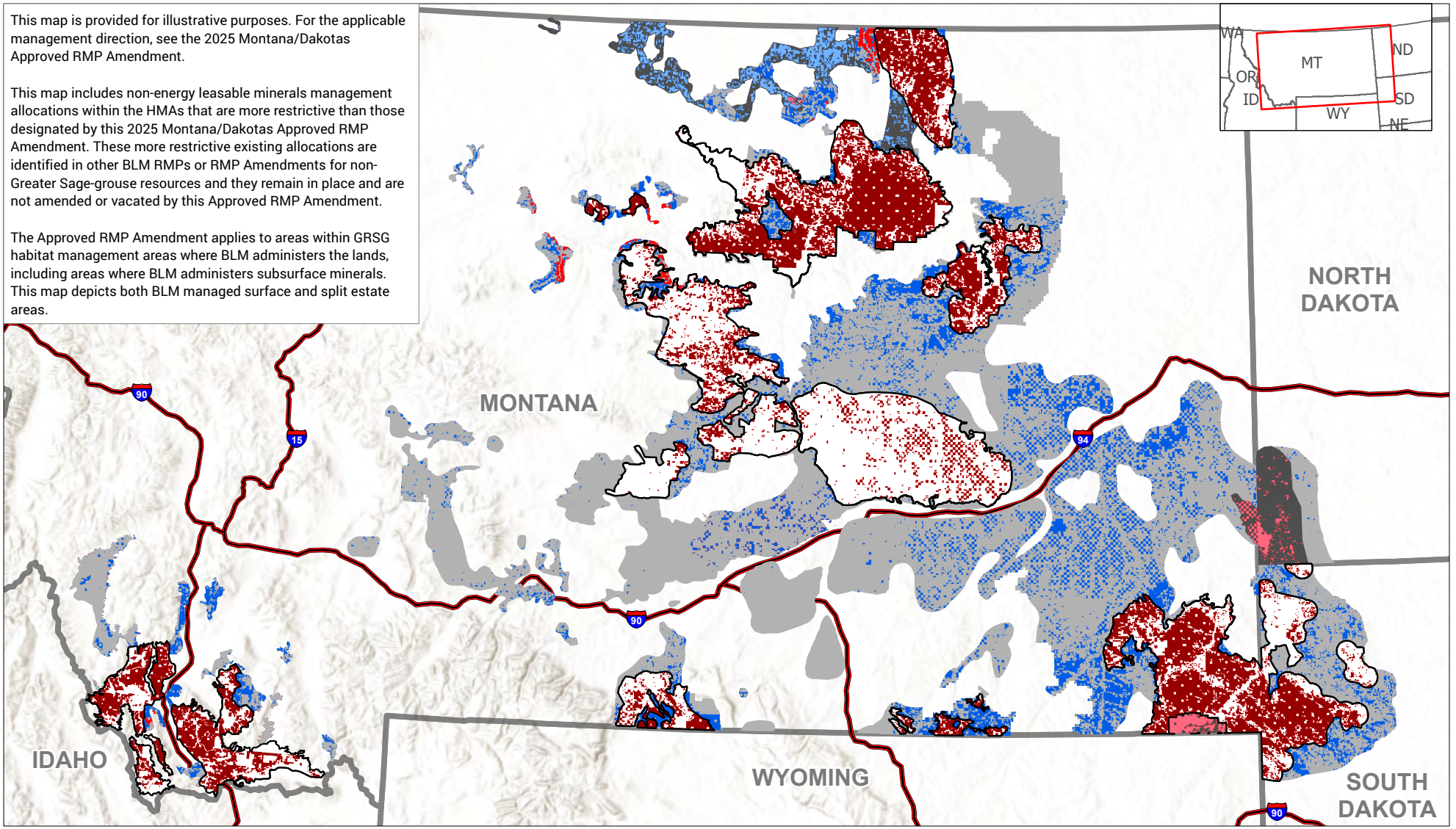
This map includes non-energy leasable minerals management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment.

The Approved RMP Amendment applies to areas within GRSG habitat management areas where BLM administers the lands, including areas where BLM administers subsurface minerals. This map depicts both BLM managed surface and split estate areas.



PHMA GHMA Unique HMAs

N/A

Non-Energy Leasable Minerals - Closed
Non-Energy Leasable Minerals - Open
HMAs Outside Non-Energy Leasable Minerals Decision Area

N

0 10 20 30 40 50 Miles

0 20 40 60 80 100 Kilometers

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Map 11. Major Rights-of-Way and Greater Sage-Grouse Habitat Management Areas

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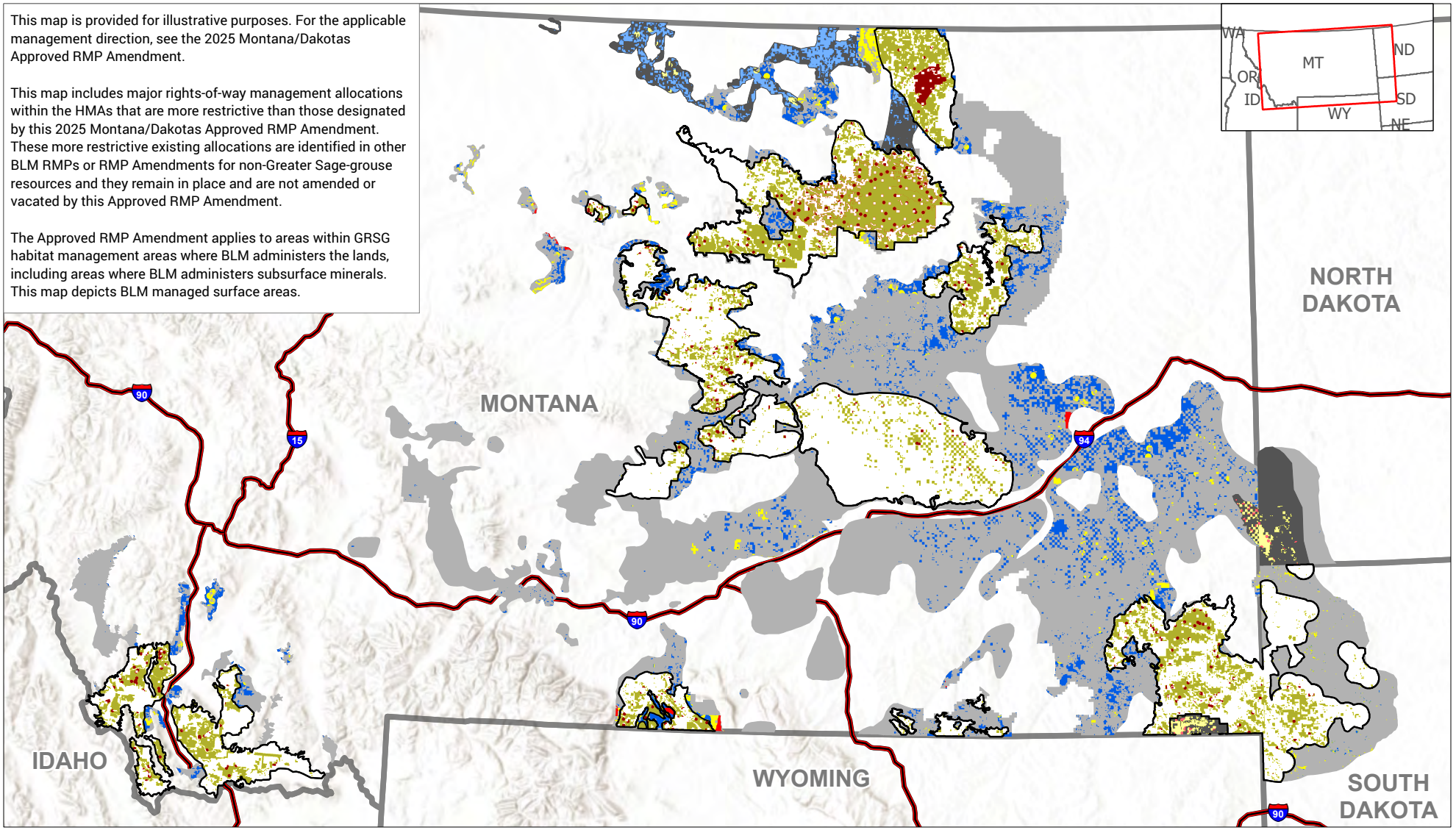
This map is provided for illustrative purposes. For the applicable management direction, see the 2025 Montana/Dakotas Approved RMP Amendment.

This map includes major rights-of-way management allocations within the HMAs that are more restrictive than those designated by this 2025 Montana/Dakotas Approved RMP Amendment. These more restrictive existing allocations are identified in other BLM RMPs or RMP Amendments for non-Greater Sage-grouse resources and they remain in place and are not amended or vacated by this Approved RMP Amendment.

The Approved RMP Amendment applies to areas within GRSG habitat management areas where BLM administers the lands, including areas where BLM administers subsurface minerals. This map depicts BLM managed surface areas.



PHMA GHMA Unique HMAs

N/A

Major Rights-of-Way Decisions - Exclusion
Major Rights-of-Way Decisions - Avoidance
Major Rights-of-Way Decisions - Open
HMAs Outside Major Rights-of-Way Decision Area

N

0 10 20 30 40 50 Miles
0 20 40 60 80 100 Kilometers

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Appendix 2

Comparison of Prior Greater Sage-Grouse RMP Management Direction with Approved RMP Amendment

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Appendix 2. Comparison of Prior Greater Sage-Grouse RMP Management Direction with Approved RMP Amendment

2.1 BILLINGS RMP

This appendix presents the GRSG approved RMP language from the 2015 record of decision for the Billings RMP revision. The Billings RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions are amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions are not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2015 appendices that are listed in **Section 2.1.1** of this appendix.

Table 1: GRSG RMP Management Direction in Billings RMP

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
Vegetation – Forests and Woodlands (Veg/F&W)	
MD Veg/F&W-8: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the FIAT report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.	Partially Revised - revised to clarify and remove FIAT reference.
Vegetation – Rangelands and Shrublands (Veg/R&S)	
Goal Veg/R&S 3: Maintain, improve, enhance, or restore habitat to facilitate the conservation, recovery, and maintenance of populations of native and desirable nonnative plant and animal species.	No change (same as 2015)
Goal Veg/R&S 4: Promote recovery and restoration of sagebrush communities after wildfire events.	No change (same as 2015)
MD Veg/R&S-1: Manage rangelands to meet health standards consistent with the Standards for Rangeland Health (Standards 1 and 5) and Guidelines for Livestock Grazing Management and apply appropriate guidelines where not meeting the standards.	No change (same as 2015)
MD Veg/R&S-3: Identify priority treatment areas for conifer encroachment, including big game winter range, WUIs, current and historic sagebrush habitat, forest meadows and bighorn sheep habitat.	No change (same as 2015)
MD Veg/R&S-6: Within Greater Sage-Grouse PHMA, only treatments that conserve, enhance, or restore Greater Sage-Grouse habitat will be allowed. Treatment methods, including prescribed burning and mechanical treatments will be used to eliminate conifer encroachment and stimulate vegetative re- growth in grassland/shrub land habitats; and to reduce fuels, thin under-stories, recycle nutrients, and create small openings in forested vegetation types.	Partially Revised - revised to add additional language for treatments in HMAs (VEG MA-X)

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
MD Veg/R&S-7: In all PHMA the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
MD Veg/R&S-9: A target of eight percent of crested wheatgrass acres (approximately 2,378 acres) will be converted to native sagebrush/grassland over the life of the plan. Preferred treatment areas will be areas that are not currently being used in a grazing system to provide early spring grazing and reduce grazing pressure from other areas within a grazing allotment. Priority treatment areas will be in Greater Sage-Grouse PHMA, RHMAs, and GHMA.	Partially Revised - revised to clarify and remove RHMA.
No similar action actions.	New vegetation actions added
Vegetation – Riparian and Wetlands (Veg/R&W)	
MD Veg/R&W-2: Manage riparian communities to meet Standards for Rangeland Health (Standard 2) to ensure riparian areas and wetlands are in Proper Functioning Condition (PFC). (Appendix Z)	No change (same as 2015)
MD Veg/R&W-4: Riparian areas will be monitored on a prioritized basis. High priority areas will include: • Riparian areas adjacent to fish bearing waters. • Riparian areas with existing cottonwood galleries or potential cottonwood gallery habitat • Riparian areas within Greater Sage-Grouse Priority Habitat	No change (same as 2015)
Vegetation – Invasive Species and Noxious Weeds (Veg/IS&NW)	
Goal Veg/IS&NW 1: Manage for healthy native plant communities and desirable nonnative plant communities by reducing, preventing expansion of, or eliminating the occurrence of undesirable invasive species, undesirable nonnative, or noxious weeds (predatory plant pests or disease) by implementing management actions consistent with national guidance, state, and local weed management plans.	No change (same as 2015)
Goal Veg/IS&NW 2: Use IPM to make progress towards a healthy plant community, while meeting multiple land use objectives and meeting Standards for Rangeland Health (Standards 1, 2, and 5).	No change (same as 2015)
MD Veg/IS&NW-14: Noxious and invasive weed control will not occur within ½ mile of nesting and brood rearing areas for special status species during the nesting and brood rearing season.	No change (same as 2015)
Wildlife Habitat and Special Status Species (Wildlife) (WLH & SSS)	
Objectives: Sagebrush, native grasslands, seasonal or crucial wildlife ranges, special status species habitat, fisheries, cottonwood galleries, and riparian/wetlands will be priority habitats. All wildlife habitats will be managed to meet Rangeland Health Standards (Standards 1 and 5). BLM is responsible for managing habitats, whereas state and federal wildlife management agencies (e.g., MT FWP, USFWS) oversee management of wildlife species. BLM will coordinate with and support the conservation plans of those agencies on BLM administered lands. Priority wildlife species for management are described in Chapter 3.	No change (same as 2015)

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
In 2010, the USFWS determined that the Greater Sage-Grouse is a Candidate species and Warranted, but precluded, by other priorities, for listing under the ESA. In 2009, the MT/DAKs BLM delineated three types of Greater Sage-Grouse habitat areas as part of the planning process (Map 2-1): • Greater Sage-Grouse Habitat - PHMA, • Greater Sage-Grouse Habitat - RHMA, and • Greater Sage-Grouse Habitat – GHMA Each area will have varying degrees of management in order to achieve the goals or objectives for each Greater Sage-Grouse habitat area. The Greater Sage-Grouse habitat delineations may be modified as needed as local site conditions change or as new information becomes available. Refer to the Glossary for definitions of the three Greater Sage-Grouse habitat areas, Appendix F for mitigation measures and conservation actions for Greater Sage-Grouse habitat, and Appendix D for monitoring of Greater Sage-Grouse and Sagebrush Habitats.	Completely Revised
Goal WLH & SSS 2: Manage for net conservation gain and connectivity of habitats on BLM-administered lands. The necessary habitat will be present to maintain, enhance, or restore threatened and endangered (T & E), special status, and priority native species populations. Sagebrush, native grasslands, seasonal or crucial wildlife ranges, special status species habitat, fisheries, cottonwood galleries, and riparian/wetlands will be priorities.	No change (same as 2015)
Goal WLH & SSS 3: Manage all BLM actions or authorized activities to sustain wildlife populations and their habitats and to avoid contributing to the listing of or jeopardizing the continued existence or recovery of special status species and their habitats.	No change (same as 2015)
Goal WLH & SSS 4: Manage or restore habitat on BLM-administered lands within the planning area to facilitate the conservation, recovery, and maintenance of populations of native, desirable non-native, and special status species consistent with appropriate local, state, and federal management plans.	No change (same as 2015)
Goal WLH & SSS 5: Manage habitats to support MT FWP in the attainment of objectives and well-distributed, healthy populations of wildlife species consistent with the MT FWP's Strategic Habitat Plan, Montana's Comprehensive Fish and Wildlife Conservation Strategy, and strategic population plans, and to achieve the stated purpose of designated State of Montana Wildlife Management Areas (WMA).	No change (same as 2015)
Goal WLH & SSS 8: Provide for the long-term conservation, enhancement, and restoration of the sagebrush steppe/mixed-grass prairie complex in a manner that supports sustainable Greater Sage-Grouse populations and a healthy diversity and abundance of wildlife species.	Partially Revised – Clarified to be more general. GRSG specific goal is part of direction.
MD WLH & SSS-6: Fences identified as barriers to wildlife movement on BLM-administered lands will be modified or removed to accommodate wildlife passage, unless the fences were built specifically to keep native ungulates out of an area. Fences will also be placed and marked, or modified, to reduce wildlife collisions or entanglements.	No change (same as 2015)
MD WLH & SSS-7: Conditions of Approval (COAs) will be applied to all Applications for Permit to Drill (APDs) for Special Status Species.	No change (same as 2015)

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MD WLH & SSS-8: Utilize appropriate off-site compensatory mitigation to reduce impacts on wildlife habitat. This will be necessary if (1) all onsite mitigation has been accomplished and adverse effects have not been mitigated; or (2) if onsite mitigation is not feasible. Off –site mitigation will be applied as close to the affected area as possible and for the same or similar impacted species or habitats.	No change (same as 2015)
MD WLH & SSS-18: Areas that will be targeted for conversion from crested wheatgrass to native sagebrush/grasslands will be areas that have high wildlife habitat potential, particularly for Greater Sage- Grouse, big game, and other sagebrush obligate species, and are currently monocultures with little vegetation diversity.	No change (same as 2015)
MD WLH & SSS-27: Mitigation of surface-disturbing or disrupting activities (including operations and maintenance associated with fluid mineral development) will be applied where needed to minimize impacts of human activities on important seasonal wildlife habitats, consistent with the wildlife stipulations outlined in the Wildlife / Special Status Species and Fluid Minerals sections of Chapter 2. Mitigation measures will be applied during activity level planning if an on-site evaluation of the project area indicates the presence of important wildlife species. Exceptions may be granted by the AO, if an environmental review demonstrates that effects could be mitigated to an acceptable level, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species. Exceptions may also be granted where the short- term effects are mitigated by the long-term benefits (e.g., prescribed fire, wildlife monitoring, or forest health treatments). As defined in the Glossary, surface-disturbing and disruptive activities will not prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression, search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreational activities (e.g., hunting, hiking), and livestock grazing are not considered surface-disturbing or disruptive activities.	Partially revised – add reference to GRSG specific mitigation approach
MD WLH & SSS-38: Crucial Winter Range - Surface occupancy and use for oil and gas exploration and development will be prohibited (NSO) in crucial winter range (antelope, elk, moose, bighorn sheep, mule deer, whitetail deer, and greater sage-grouse).	Partially Revised – New stipulation language applied for GRSG.
MD WLH & SSS-51: Special Status Species - Identify distribution, key habitat areas, and special management needs for development of management plans and conservation measures, consistent with restoration, conservation and recovery plans for threatened, endangered, and other special status species. Priority habitats are riparian/ wetland areas, native grasslands, sagebrush steppe, conifer forests, and seasonal ranges supporting life cycle requirements for wildlife (i.e., winter, breeding, parturition, etc.).	No change (same as 2015)
MD WLH & SSS-52: Special Status Species - Timing restrictions will be used in special status species habitat. Surface disturbing and disruptive activities that impact special status species habitats during their seasons of use, particularly during critical life cycles will be avoided or minimized.	No change (same as 2015)
MD WLH & SSS-53: Special Status Species - Assist in the restoration, reintroduction, augmentation, or re-establishment of T & E, special status, and priority species and other populations and (or) habitats in coordination with other agencies.	No change (same as 2015)

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MD WLH & SSS-56: Special Status Species - Lease Notice: Oil and gas surface occupancy and use is subject to the following operating constraints: The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the ESA as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.	No change (same as 2015)
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language in MD WLH & SSS-73 and 74. These two MDs are deleted and replace with the text below.] The habitat objectives for GRSG (Table 2-6) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-6 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland	Completely Revised - Table 2-6 removed, indicators now in Appendix 4 Completely Revised

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health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	*(see above)*
MD WLH & SSS-75: Special Status Species: Greater Sage-Grouse – In addition to the references identified in the following table, the Conservation Plans developed for each of the Wyoming Local Sage-Grouse Working Groups will be consulted to identify specific habitat objectives appropriate for site- specific conditions. The Conservation Plans, updated in March 2014, are available on the Wyoming Game and Fish Department (WGFD) website at: https://wgfd.wyo.gov/web2011/wildlife-1000817.aspx.	Completely Revised
MD WLH & SSS-76: Special Status Species: Greater Sage-Grouse – All BLM use authorizations will contain terms and conditions regarding the actions needed to meet or progress toward meeting the habitat objectives. If monitoring data show the habitat objectives have not been met nor progress being made towards meeting them, there will be an evaluation and a determination made as to the cause. If it is determined that the authorized use is a cause, the use will be adjusted by the response specified in the instrument that authorized the use.	Completely Revised
MD WLH & SSS-9: The BLM will apply appropriate mitigation measures and conservation actions to BLM authorized activities to avoid, minimize, rectify, reduce, or compensate for impacts if an evaluation of the project area indicates the presence of important wildlife species, seasonal wildlife habitat, or other resource concern.	No change (same as 2015)
MD WLH & SSS-71: In all sage-grouse habitat, in undertaking BLM management actions, and consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Actions which result in habitat loss and degradation" include those identified as threats which contribute to Greater Sage-Grouse disturbance as identified by the USFWS in its 2010 listing decision (75 FR 13910) and shown in Table 2 in the attached Monitoring Framework (Appendix D).	Partially Revised – updated regulation and policy references
MD WLH & SSS-77: Surface occupancy and use for oil and gas exploration and development will be prohibited within Greater Sage-Grouse crucial winter range (NSO).	Completely Revised

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[Plan Maintenance Action in 2018 conducted to acknowledge adoption of the State of Montana Habitat Conservation Program Density Disturbance Calculation Tool, changed Montana BLM Field Offices to a 5% cap. See DOI-BLM-MT-2018-0005-CX.] MD WLH & SSS-78: Special Status Species – Greater Sage-Grouse – If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.) will be permitted by BLM within PHMA in a project analysis area until the disturbance has been reduced to less than the cap. If the BLM determines that the State of Montana has adopted a GRSG Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational Density Disturbance Calculation Tool, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within a project analysis area. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG PHMA in any given BSU until the disturbance has been reduced to less than the cap. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.	Completely Revised
MD WLH & SSS-81: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B.	Completely Revised
MD WLH & SSS-83: Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of land ownership) in the PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area.	No change (same as 2015)
No similar action.	New sensitive status species actions added
No similar action.	New predation actions added

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GRSG PHMA	
Goal WLH & SSS 10: To maintain or improve Greater Sage-Grouse populations by maintaining Greater Sage- Grouse habitat in good condition.	No change (same as 2015)
MD WLH & SSS-79: Establish Greater Sage-Grouse PHMA (158,926 acres of BLM-administered lands and 205,254 acres of federal minerals). These PHMA are generally consistent with MTFWP Greater Sage-Grouse core area designations, with the exception of one small area in southern Carbon County near Elk Basin Oil field (Map 2-1).	Completely Revised
MD WLH & SSS-80: In all PHMA the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
MD WLH & SSS-81: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B.	Completely Revised
MD WLH & SSS-82: No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The AO may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action: • Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or, • Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG. Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP revision. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. Any exceptions to this lease stipulation may be approved by the AO only with the concurrence of the State Director. The AO may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.	Completely Revised

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MD WLH & SSS-85: Open to fluid mineral leasing and development (including geophysical exploration). To protect Greater Sage-grouse, a priority species for management, surface occupancy and use for oil and gas exploration and development will be prohibited within Greater Sage-Grouse PHMA (NSO).	Completely Revised
MD WLH & SSS-86: Exclusion area for renewable and solar energy exploration and facility development.	Completely Revised
MD WLH & SSS-87: Avoidance area for major and minor ROWs. However ROWs will only be allowed in GRSG PHMA where habitat functionality will be maintained.	Completely Revised
GRSG RHMAs	
Goal WLH & SSS 11: In these areas, BLM will manage habitat so that Greater Sage-Grouse populations can be restored over the long-term. BLM will strive to restore historical Greater Sage-Grouse habitat functionality, or at a minimum, have no net loss of Greater Sage-Grouse habitat, to support Greater Sage-Grouse populations.	Completely Revised
MD WLH & SSS-88: Establish RHMAs (78,927 acres of BLM-administered lands and 88,642 acres of federal mineral estate). These areas will include one small polygon of core habitat in Carbon County near Elk Basin Oil Field, as well as other areas (Map 2-1).	Completely Revised
MD WLH & SSS-89: Surface occupancy and use for oil and gas exploration and development will be prohibited within 0.6 miles of Greater Sage-Grouse leks (NSO).	Completely Revised
MD WLH & SSS-90: Surface use for oil and gas exploration and development will be prohibited from March 1 to June 15 in Greater Sage-Grouse nesting habitat within 3 miles of a lek (TL).	Completely Revised
MD WLH & SSS-91: Surface occupancy and use for oil and gas exploration and development will be subject to the following special operating constraints that will maintain Greater Sage-Grouse habitat: surface disturbance density and mitigation plan (CSU).	Completely Revised
MD WLH & SSS-92: Geophysical exploration will be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 4 miles of a lek (TL).	Completely Revised
MD WLH & SSS-93: GRSG RHMAs outside of Elk Basin will be avoidance areas for renewable and solar energy exploration, development and facilities with approved mitigation.	Completely Revised
MD WLH & SSS-94: The Elk Basin GRSG RHMA will be an exclusion area for renewable and solar energy exploration, development and facilities with approved mitigation.	Completely Revised
MD WLH & SSS-95: Avoidance area for major and minor ROWs. However ROWs will only be allowed in GRSG RHMAs where habitat functionality will be maintained.	Completely Revised
GRSG GHMA	
Goal WLH & SSS 12: BLM will maintain habitat for viable Greater Sage-Grouse populations to promote movement and genetic diversity. Maintain, restore or enhance Greater Sage-Grouse habitat and connectivity between sagebrush habitats, with emphasis on those habitats occupied by Greater Sage-Grouse.	No change (same as 2015)
MD WLH & SSS-96: Establish GHMA (176,734 acres of BLM-administered lands and 299,166 acres of federal mineral estate). These areas include a 3 mile buffer around Greater Sage-Grouse leks, outside of the PHMA and RHMA areas (Map 2-1).	Completely Revised

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MD WLH & SSS-97: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B.	Completely Revised
MD WLH & SSS-98: Surface occupancy and use for oil and gas exploration and development will be prohibited within 0.6 miles of the perimeter of Greater Sage-Grouse leks (NSO).	Completely Revised
MD WLH & SSS-99: To protect nesting Greater Sage-grouse, surface occupancy and use within 2 miles of a lek may be restricted or prohibited. Prior to such activities, a plan to mitigate impacts on nesting Greater Sage-grouse and Greater Sage-grouse nesting habitat will be prepared by the proponent and implemented upon approval by the AO (CSU).	Completely Revised
MD WLH & SSS-100: Geophysical exploration will be allowed on existing roads and trails with surface use prohibited from March 1 to June 15 within 3 miles of a lek (TL).	No change (same as 2015)
MD WLH & SSS-101: Avoidance area for renewable and solar energy exploration, development and facilities with approved mitigation.	Completely Revised
MD WLH & SSS-102: GRSG GHMA will be avoidance areas for major ROWs. GRSG GHMA will be open to minor ROWs. Utilities and similar facilities will be located adjacent to other facilities where practical and only when habitat can be maintained.	Completely Revised
MD WLH & SSS-103: Consider the potential for the development of not-yet-constructed valid existing rights of surface disturbing activities as defined in Table 2 of the Monitoring Framework (Appendix D) prior to authorizing new projects in PHMA.	Partially Revised – Updated monitoring framework , move to correct section.
Fire Ecology and Management (Fire)	
Goal FIRE 1: Manage wildfire and fuels for the protection of public health, safety, property, and resource values. The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection.	No change (same as 2015)
Goal FIRE 3: Maintain desired mix of seral stages within vegetation communities, including desert shrublands, forest and woodlands, grasslands, mountain shrublands, sagebrush (all sub-species), riparian/wetlands and aspen.	No change (same as 2015)
Goal FIRE 6: Utilize an integrated management technique unless otherwise restricted (defined as prescribed fire, mechanical, chemical, or biological, followed by desired reseeding) to reduce fuels to protect high priority areas or resource values.	No change (same as 2015)
MD FIRE-4: Fuels treatments will be designed to protect or improve resource values	No change (same as 2015)
MD FIRE-7: Within the following areas work to restore or maintain approximately 14,000 acres available for restoring natural Fire Regime Condition Classes (FRCC) in Musselshell, Stillwater, Carbon, and Sweet Grass Counties, should resource management constraints and considerations (i.e. GRSG habitat, other identified T&E issues, and culturally sensitive areas) allow.	No change (same as 2015)

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MD FIRE-8: If prescribed fire is used in Greater Sage-Grouse habitat, the NEPA analysis for the Burn Plan will address: • why alternative techniques were not selected as a viable options; • how Greater Sage-Grouse goals and objectives will be met by its use; • how the COT Report objectives will be addressed and met; • a risk assessment to address how potential threats to Greater Sage-Grouse habitat will be minimized. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that will protect Greater Sage-Grouse habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality."	No change (same as 2015)
MD FIRE-11: Heavy equipment will not be used to construct fire lines in crucial winter range, habitat of candidate or special status species, riparian/wetlands or in areas of cultural resource sensitivity or other designated areas (e.g., ACECs, WSAs). Exceptions will be permitted for protection of human life, property and/or to protect resource values from further loss due to unwanted/unplanned natural or human caused wildland fires. Cultural Resource Specialists, Wildlife Biologists, or Resource Advisors will be consulted for locations of identified areas before use of or anticipated use of heavy equipment. If heavy equipment is used, rehabilitation work on lines will begin immediately after containment. Heavy equipment could be used in a WSA only if the exceptions in the non-impairment standards are met.	No change (same as 2015)

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MD FIRE-14: Prescribed fire will be allowed on up to 5 percent of the percent of BLM administered acres within the planning area to achieve measurable landscape level objectives from (1) other resources, including, but not limited to, forestry, wildlife, range, vegetation, and watershed; (2) the reduction of hazardous fuels; and (3) the introduction of fire into fire-adapted ecosystems. Within Greater Sage-Grouse PHMA and RHMAs, only treatments that conserve, enhance, or restore Greater Sage-Grouse habitat will be allowed. Treatment methods, including prescribed burning and mechanical treatments will be used to eliminate conifer encroachment and stimulate vegetative re-growth in grassland/shrub land habitats; and to reduce fuels, thin under-stories, recycle nutrients, and create small openings in forested vegetation types. A fire risk assessment will be completed for implementation of prescribed fire in relation to GRSG goals and objectives. When prescribed fire is used for vegetation treatments, the burn plan will clearly indicate how COT objectives will be addressed and met by use of prescribed fire and why alternative techniques for vegetation treatment were not selected.	Partially Revised - revised to clarify and separate out GRSG management (only MD FIRE-8 needed)
Energy &Mineral Resources: Solid Leasables (including Coal) (SL-Coal)	
MD SL-COAL-4: Terms and conditions will be applied to mining activities to meet land health standards for uplands, riparian areas and wetlands, water quality, air quality, and native plant and animal species (see BMPs in Appendix H and Greater Sage-Grouse Required Design Features in Appendix C).	No change (same as 2015)
MD SL-COAL-6: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part3461.5(o)(1).	Completely Revised
MD SL-COAL-8: Within Greater Sage-Grouse PHMA (Map 3-5) and RHMAs solid mineral leasing (coal) will only be allowed with the following lease stipulations: • Mining may only occur via subsurface methods • All mine related appurtenant facilities will be placed outside of the PHMA	Partially Revised – RHMA removed, PHMA updated.
MD SL-COAL-9: Remainder of Planning Area: Process lease by application (LBAs) for new coal leases by applying the coal screening process to the application. The coal screening process results will determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis will be required prior to leasing. The existing RMP (BLM 1984) coal- screening management decisions are current and relevant to the application area. (See Appendix M)	No change (same as 2015)

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Energy & Mineral Resources: Fluid Mineral Resources (FLUIDS)	
MD FLUIDS-15: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse (Map 2-4). The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).	Completely Revised
MD FLUIDS-16: Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, reduce and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD for the lease to avoid and minimize impacts on sage-grouse or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.	Completely Revised
MD FLUIDS-17: Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in non-federal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised – Applies to all minerals and updated HMA language
MD FLUIDS-18: Where the federal government owns the surface and the mineral estate is in non- federal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised – Applies to all minerals and updated HMA language
Energy & Mineral Resources: Locatable Minerals (LOC_MIN)	
Goal LOC_MIN 1: Encourage and facilitate development of locatable minerals in the manner to prevent unnecessary or undue degradation, as defined in 3809.5. Provide land use opportunities contributing to economic benefits while protecting or minimizing adverse impacts on other resources.	No change (same as 2015)
MD LOC_MIN-4: Terms and conditions will be applied to mining activities (within the constraints of the mining law) to meet land health standards for uplands, riparian and wetlands, water quality, air quality, and native plant and animal species (see Appendices B, C, D, E, F) for Greater Sage-Grouse specific measures). Note: All withdrawal actions (including mineral withdrawals) are processed in the Realty, Cadastral Survey, and Lands program. Restrictions applicable to locatable minerals are limited to the prevention of unnecessary or undue degradation, as defined in 43 CFR, Part3809.5.	No change (same as 2015)
Energy & Mineral Resources: Mineral Materials (Saleable) (SALE_MIN)	
Goal SALE_MIN 1: Provide land-use opportunities contributing to economic benefits and meet local infrastructure needs while protecting or minimizing adverse impacts on other resources and resource uses.	No change (same as 2015)

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MD SALE_MIN-4: The following areas are closed to mineral material disposals (281,597 acres) (Maps 2-6 & 3-8): • Four Dances Natural Area **ACEC** • Petroglyph Canyon **ACEC** • Pompeys Pillar **ACEC** • Pryor Foothills RNA/ACEC • Stark Site **ACEC** • Weatherman Draw **ACEC** • Lands with wilderness characteristics (LWC) • Big Horn Tack-On **WSA** • Burnt Timber Canyon **WSA** • Pryor Mountain **WSA** • Twin Coulee WSA (If Twin Coulee WSA is released from further consideration, the area may be open to mineral material disposals.) • Greater Sage-Grouse PHMA - closed to new salable minerals sales; existing permits will be renewed with no increase in the permitted boundary. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are **met:** o the activity is within the BSU and project area disturbance **cap;** o the activity is subject to the provisions set forth in the mitigation framework (Appendix F); • all applicable required design features are applied; and [if applicable] the activity is permissible under the specific sub-regional screening criteria • Shepherd Ah-Nei Recreation **Area** • Acton Recreation **Area** • Asparagus Point	Partially Revised - Amendment applies to GRSG Only
Energy & Mineral Resources: Non-Energy Leasable (LEAS_MIN)	
No similar action.	New nonenergy leasable minerals actions added
Realty, Cadastral Survey, and Lands: Land Tenure Adjustment and Access (R/LT)	
MD R/LT-14: Lands classified as priority habitat and general habitat (or habitat classification appropriate for the sub-region) for Greater Sage-Grouse will be retained in federal management unless: the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the Greater Sage-Grouse or the agency can demonstrate that the disposal of the lands, including land exchanges, will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse. (Map 2-11)	Partially Revised – Maintenance action to clarify applies to HMA
MD R/LT-18: Manage 353,829 acres in Category II (which includes GRSG habitat) - Retention/Limited Land Ownership Adjustment (no land disposals through direct sale). Land exchanges will be considered. (Map 3-9)	No change (same as 2015)
Realty, Cadastral Survey, and Lands: Rights-of-Way, Leases, and Permits (R/RLP)	
Goal R/RLP 4: Indirect effects of infrastructure will be minimized through time by siting informed by the best available science updated as monitoring information becomes available.	No change (same as 2015)
MD R/RLP-15: PHMA avoidance area for major and minor ROWs. (Maps 2-9 & 2-10) However ROWs will only be allowed in GRSG PHMA where habitat functionality will be maintained.	Completely Revised

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
MD R/RLP-16: RHMA avoidance area for major and minor ROWs. (Maps 2-9& 2-10) However ROWs will only be allowed in GRSG RHMAs where habitat functionality will be maintained.	Completely Revised
MD R/RLP-17: GHMA avoidance areas for major ROWs. (Maps 2-9 & 2-10) Utilities and similar facilities will be located adjacent to other facilities where practical and only when habitat can be maintained.	Completely Revised
MD R/RLP-18: GHMA open to minor ROWs. Utilities and similar facilities will be located adjacent to other facilities where practical and only when habitat can be maintained.	Completely Revised
MD R/RLP-21: Silver Tip Road in Carbon County will be designated as a ROW corridor (1,750 feet on either side of the center line of Silver Tip Road). This corridor will have a total width of 3,500 feet and 6 miles in length on public land, with the exception of the portion of this corridor occurring in the Elk Basin GRSG RHMA which will be 1,320 feet on either side of the center line of Silver Tip Road (total width of 2,640 feet) (Map 2-8).	Partially revised – no RHMA, now Elk Basin PHMA. Update Map ref.
MD R/RLP-23: ROW avoidance areas will include 378,958 acres (Maps 2-9, 2-10, 3-11): • Castle Butte **ACEC** • East Pryor **ACEC** • Four Dances Natural Area **ACEC** • Grove Creek **ACEC** • Pompeys Pillar ACEC (General Management Zone - restricts ROW to a 500' wide path paralleling the southern boundary of the public lands along Highway 312) • Pryor Foothills RNA/ACEC • Stark Site ACEC Weatherman Draw (expansion **area)** • Cave and karst areas will be managed as ROW avoidance areas. • L&CNHT and NPNHT corridors will managed as ROW avoidance areas • Asparagus Point, Steamboat Butte, portion of Acton, portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains • Hoskins Basin Archeological District, Demi-John Flat Archeological District, Beartooth Mountain Front (2 mile strip bordering the eastern boundary of the Custer National Forest) • WSR eligible segments • Big Horn Sheep Winter Range • Big Game Winter **Range** • Greater Sage-Grouse **GHMA** • Greater Sage-Grouse PHMA and RHMAs will remain avoidance areas. However ROWs will only be allowed in Greater Sage-Grouse PHMA and RHMAs where habitat functionality will be maintained.	Partially Revised - revised by addition of GRSG direction [Amendment applies to GRSG only]
Realty, Cadastral Survey, and Lands – Withdrawals (R/WD)	
MD R/RWD-4: Withdrawal proposals will be evaluated at the project level and will not be approved unless the land management is consistent with maintaining and protecting BLM resource values (see (Appendix H, BMPs) and GRSG Appendices (Appendices B, C, D, E, F, G) as appropriate).	No change (same as 2015)

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
Livestock Grazing (LG)	
Goal LG 1: Provide opportunities for livestock grazing as a part of multiple-use in a manner that meets and/or exceeds rangeland health standards.	No change (same as 2015)
MD LG-9: In areas of resource conflicts, installation of structural range improvements will only be considered where grazing practices (change in season of use, reduction of AUMs, increased rest, etc.) are unable to resolve the resource concern. Structural range improvements could be considered where necessary to facilitate the change in grazing management practices. Existing range improvements will be evaluated and modified to address impacts on wildlife populations (e.g. Greater Sage-Grouse/fence conflicts).	Completely Revised
MD LG-11: All allotments wholly located in Greater Sage-Grouse PHMA will be considered for retirement, where the base property owner relinquishes their preference.	Completely Revised
MD LG-12: Site specific Greater Sage-Grouse habitat and management objectives will be developed for BLM land within Greater Sage-Grouse PHMA. These objectives will be incorporated into the respective allotment management plans (AMPs) or livestock grazing permits as appropriate. (Map 2-1)	Completely Revised
MD LG-13: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will include specific management thresholds based on GRSG Habitat Objectives Table (Table 2-6) and Land Health Standards (43 CFR, Part4180.2) and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
MD LG-14: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.	Completely Revised
MD LG-15: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will include specific management thresholds based on GRSG Habitat Objectives Table (Table 2-6) and Land Health Standards (43 CFR, Part4180.2) and ecological site potential, and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
MD LG-16: Allotments within PHMA, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.	Completely Revised

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
MD LG-17: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part4110.2-3	Removed
Recreation and Visitor Services (REC)	
MD REC-15: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development will have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - see mitigation and SSS sections
MD REC-27: The BLM will issue special recreation use permits as appropriate for commercial, competitive, and special events subject to guidelines in BLM Handbook 2930, resource capabilities, social conflict concerns, professional qualifications, public safety, and public needs. SRPs will only be allowed in priority habitat if they are consistent with the goals and objectives for that habitat or species.	No change (same as 2015)
Trails and Travel Management (TTM)	
MD TTM-24: Site specific travel planning within Greater Sage-Grouse PHMA will be completed within a five (5) year period after the ROD is signed where it hasn't already been completed as part of this plan.	No change (same as 2015)
MD TTM-25: In PHMA and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6320 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use). Temporary closure or restriction orders under these authorities are enacted at the discretion of the AO to resolve management conflicts and protect persons, property, and public lands and resources. Where an AO determines that OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR, Part8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)
<u>Gage Dome/Colony Road TMA</u> MD TTM-47: Management Objectives: reduce road density to minimize impacts on Greater Sage- Grouse habitat and other resource values. Manage the TMA to provide recreational opportunities and access while protecting Greater Sage-Grouse habitat	No change (same as 2015)

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
Cottonwood/Weatherman Draw TMA MD TTM-58: This area will be delineated into three sub-regions to address varying resource issues, access and recreational opportunities. Sub-Region I - Weatherman Draw/Castle Coulee. Management objectives: protect cultural values and resources within the ACEC. Minimize impacts on cultural values, fragile and erosive soils and other resources within the sub-region Sub-Region II - Hollenbeck. Management objectives: provide recreational opportunities with emphasis on minimizing impacts on Greater Sage-Grouse habitat, fragile and erosive soils, and other resource values Sub-Region III - Silver Tip. Management objectives: provide for motorized recreational opportunities with emphasis on minimizing impacts on fragile and erosive soils, and other resource values	No change (same as 2015)
Warren TMA MD TTM-60: Management Objectives: to provide recreational opportunities with emphasis on protecting key Greater Sage-Grouse habitat while minimizing impacts on other resources values. Maintain current level of access.	No change (same as 2015)
Grove Creek TMA MD TTM-62: Management Objectives: to minimize impacts on geologic and visual resources, special status plants, and cultural and wildlife values, including Greater Sage-Grouse, while providing casual, non- commercial public recreational access.	No change (same as 2015)
Renewable Energy (Wind/Solar) (RE)	
MD RE-5: Manage 231,755 acres as exclusion areas (closed) to renewable energy authorizations, including: WSAs* • Big Horn Tack-On WSA • Burnt Timber Canyon WSA • Pryor Mountain WSA • Twin Coulee WSA *If released by an Act of Congress, lands within WSA boundaries will remain closed. National Historic Trails • Nez Perce NHT • Lewis & Clark NHT ACECs • Bridger Fossil Area ACEC • Castle Butte ACEC • East Pryor ACEC • Four Dances Natural Area ACEC • Grove Creek ACEC • Meeteetse Spires ACEC • Petroglyph Canyon ACEC • Pompeys Pillar ACEC • Pryor Foothills RNA ACEC • Stark Site ACEC • Weatherman Draw ACEC WSR Eligible/Suitable Segments • LWC • PMWHR	Partially Revised - revised by incorporation of GRSG direction [Amendment applies to GRSG Only]

GRSG Management from 2015 Billings RMP	2025 BLM GRSG Approved RMP Amendment
Cultural Sites • Steamboat Butte • Bruder-Janich Site • Paul Duke Site • Demi-John Flat NR District • Bighorn Mouth North Cliffs Rock Art Site • Hoskins Basin Archaeological District VRM Class I areas GRSG PHMA Elk Basin GRSG RHMA	*(see above)*
MD RE-6: Manage 200,278 acres as avoidance areas for renewable energy authorizations, subject to special stipulations and mitigation beyond standard stipulations and BMPs applied through site-specific analysis. Special stipulations and mitigation include provisions such as TLs, CSU, and other constraints/restrictions consistent with fluid minerals stipulations that will be applied to protect the following particular resources/habitats: • GRSG GHMA • GRSG RHMAs outside of Elk Basin • Bald/Golden Eagles • Ferruginous Hawks • Greater Sage-Grouse Winter Range • Big Game Winter Range • Big Game Parturition • Bighorn Sheep Habitat • Sharp-tailed grouse • Peregrine Falcon • Mountain Plover • Raptor Nests • Other avoidance areas include: • Asparagus Point, Steamboat Butte, Portion of Acton, Portion of Shepherd Ah-Nei, Bad Canyon, East and Red Pryor Mountains, • Cave and Karst areas • VRM Class II areas • Within ¼ mile of riparian areas and wetlands, designated 100 year flood plains and on water bodies and streams, unless activities are not in conflict with desired outcomes. • Surface disturbance on slopes >30%, soils with low reclamation potential, and highly erodible characteristics will be avoided whenever possible. If disturbance could not be avoided an approved mitigation and reclamation plan will be required prior to activities taking place. • TLs apply to development of facilities, but not to operation or maintenance.	Partially Revised - revised by addition of GRSG direction [Amendment applies to GRSG Only]

2.1.1 Relevant Appendices

The following table shows which appendices from the 2015 plan have management direction that will change as a result of this RMPA. The 2015 appendices can be found on the Billings RMP ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Approved RMP Maps	Completely Revised – See new maps in Appendix 1
B: Greater Sage-Grouse: Applying Lek Buffers	Completely Revised
C: Greater Sage-Grouse Required Design Features	Partially updated
D: The Greater Sage-Grouse Monitoring Framework	Completely Revised
E: Greater Sage-Grouse (GRSG) Disturbance Caps	Removed, see new management direction
F: Greater Sage-Grouse - Mitigation and Mitigation Measures	Removed, see new management direction
G: Adaptive Management Strategy for GRSG Habitat Management	Removed, see new management direction
H: Best Management Practices	Partially revised – addition of livestock grazing best management practices
I: Incorporating GRSG RMP Decisions into Grazing Authorizations	Partially revised
J: Fluid Minerals: Procedures in Oil and Gas Recovery and Operations and Summary of the Billings Reasonably Foreseeable Development Scenario	No change (same as 2015)
K: Biological Opinion	No change (same as 2015)
L: Wildlife Resources	No change (same as 2015)
M: Coal Resources: Coal Development Potential and Unsuitability Criteria	No change (same as 2015)
N: SRMA and ERMA Tables	No change (same as 2015)
O: Visual Resource Management Program	No change (same as 2015)
P: Air Quality Resource Management Plan: Adaptive Management Strategy for Oil and Gas Resources	No change (same as 2015)
Q: Implementation and Monitoring	No change (same as 2015)
R: Bureau of Land Management Billings Field Office and Pompeys Pillar National Monument Sign Plan	No change (same as 2015)
S: Oil and Gas Lease Stipulations	Partial update, GRSG stipulations changed, see Appendix 6
T: Areas of Critical Environmental Concern	No change (same as 2015)
U: Cultural and Heritage Resources	No change (same as 2015)
V: Recreational Setting Characteristics	No change (same as 2015)
W: Realty, Cadastral Survey, and Lands	No change (same as 2015)
X: Lands with Wilderness Characteristics	No change (same as 2015)
Y: Screening Criteria Checklist for Ten Year Grazing Permit / Lease Renewal and Transfers	No change (same as 2015)
Z: PFC – Proper Functioning Condition	No change (same as 2015)
AA: 1975 Memorandum between Montana and Wyoming - Administration of the Pryor Mountain Wild Horse Range	No change (same as 2015)
AB: Summary of Eligibility, Suitability, and Tentative Classification Determinations for Rivers in the Billings Field Office	No change (same as 2015)
AC: Land Health Standards	No change (same as 2015)

2.2 BUTTE RMP

This appendix presents the approved RMP language from the 2009 record of decision for the Butte RMP that relate to GRSG management. The Butte RMP was not amended with GRSG decisions in 2015 or 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2009 appendices that are listed in **Section 2.2.1** of this appendix.

Table 2: GRSG RMP Management Direction in Butte RMP

GRSG Management from Butte RMP	2025 BLM GRSG Approved RMP Amendment
Management Decisions: Vegetation Communities	
Wildlife. MA 27. Vegetation altering activities could occur in sage grouse habitat where they do not result in long-term loss of habitats or contribute to the need to federally list sage grouse. Sufficient sagebrush densities and cover will be retained in sage grouse habitat. (Goals WF5, WF7, SE4)	Completely Revised
Grassland and Shrubland Vegetation. MA 1: When necessary, sagebrush and grassland distribution and vigor will be restored through vegetative treatments such as reducing conifer encroachment, reducing noxious weeds, and ensuring proper grazing practices (season of use or intensity). (Goals GS1, LG2, FM2, NW1, WF1, WF2)	No change (same as 2009)
Grassland and Shrubland Vegetation. MA 2: Management of sagebrush habitats will be a priority based on concerns over the conservation status of sage grouse, pygmy rabbit, and other species associated with sagebrush and grassland habitats. (Goals GS1, GS2, WF1, WF2, WF5, WF7).	No change (same as 2009)
No similar action	New vegetation actions added
Management Decisions: Terrestrial and Aquatic Wildlife Resources	
Wildlife. Goal WF7 – Protect, maintain, restore, and rehabilitate sagebrush habitat in occupied or historic sage grouse habitat (as mapped by MFWP).	Partially Revised - revised direction to clarify new mapping
Wildlife. MA 25. Sage grouse management activities will be designed and implemented to be consistent with adopted conservation strategies such as the Bureau of Land Management National Sage-Grouse Habitat Conservation Strategy (USDI-BLM 2004) and Management Plan and Conservation Strategies for Sage Grouse in Montana – Final (MSGWG 2005) and current, accepted science. (Goals WF6, WF7, GS1, GS2, SE4)	Completely Revised
Grassland and Shrubland Vegetation. Goal 1: Management of sagebrush habitats will be a priority based on concerns over the conservation status of sage grouse, pygmy rabbit, and other species associated with sagebrush and grassland habitats. (Goals GS1, GS2, WF1, WF2, WF5, WF7)	No change (same as 2009)
Wildlife. MA 26. To the extent possible, BLM will: maintain large patches of high quality sagebrush in occupied or historic sage grouse habitat (as mapped by MFWP); maintain connections between sagebrush habitats; and enlarge the size of sagebrush patches in occupied or historic sage grouse habitat. (Goals GS2, WF2, WF5, WF6, WF7, SE4)	Partially Revised - revised direction to clarify new mapping

GRSG Management from Butte RMP	2025 BLM GRSG Approved RMP Amendment
No similar action.	New predation, adaptive management, mitigation, disturbance, HMA, and habitat objective management actions added.
No similar action.	New sensitive species and HMA management actions added.
Management Decisions: Fluid Mineral Resources	
Fluid Leaseable Minerals Table 23 Lease Terms and Stipulations. Sage Grouse Strutting Grounds (leks) NSO ¼	Completely Revised
Fluid Leaseable Minerals Table 23 Lease Terms and Stipulations. Sage Grouse Winter/Spring Range TL 12/1-5/15	Completely Revised
No similar action.	New fluid mineral actions added.
Management Decisions: Other Resources	
No similar action.	New actions added for ROW, renewable energy, nonenergy minerals, mineral material, coal, locatable, fire and fuels management, and livestock grazing management.

2.2.1 Relevant Appendices

The following table shows which appendices from 2009 plan have management direction that may change through the Approved RMPA. The appendices can be found on the Butte RMP ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Travel Planning	No change (same as 2009)
C: Visual Resource Management (VRM)	No change (same as 2009)
D: SIMPPLLE Model	No change (same as 2009)
E: Best Management Practices	Partial revision – new BMPs to be added
F: Land Health Standards	No change (same as 2009)
G: Wildlife	No change (same as 2009)
H: Recreation Opportunity Spectrum (ROS)	No change (same as 2009)
I: Areas of Critical Environmental Concern (ACEC)	No change (same as 2009)
J: Wild and Scenic Rivers (WSR)	No change (same as 2009)
K: Cultural	No change (same as 2009)
L: Lands and Realty	No change (same as 2009)
M: Fluid Minerals	Partial revision – New GRSG stipulations to be added (see Appendix 6)
N: Implementation and Monitoring	No change (same as 2009)
No similar action.	New appendices added: Maps, Monitoring Framework, Habitat Indicators, and Livestock Grazing BMPs.

2.3 DILLON RMP

This appendix presents the GRSG approved RMP language from the 2015 record of decision amending the 2009 Dillon RMP. The Dillon RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2015 appendices that are listed in **Section 2.3.1** of this appendix.

Table 3: GRSG RMP Management Direction in Dillion

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Special Status Species (SSS)	
Goal SSS 1: Maintain and/or increase the abundance, distribution and connectivity of GRSG by conserving, enhancing and restoring GRSG habitat to maintain resilient populations by reducing, eliminating or minimizing threats to GRSG habitats.	Completely Revised
Goal SSS 2: Provide for the needs of GRSG and their habitat while also providing for resource uses in accordance with BLM's direction for multiple use and sustained yield as described in FLPMA.	No change made (same as 2015)
Goal SSS 3: Manage anthropogenic development and human disturbance to minimize the likelihood of adverse population level effects on GRSG.	No change made (same as 2015)
Goal SSS 4: Reduce the risk of West Nile Virus or other disease outbreaks from BLM management actions.	Completely Revised
Goal SSS 5: Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/or increase their abundance and distribution, in cooperation with other conservation partners.	Completely Revised
Objective SSS 1: Maintain or make progress toward all lands within PHMA and IHMA (at least 70%) capable of producing sagebrush so there is a minimum of 15 percent sagebrush cover and conifers absent to uncommon within 1.86 miles of occupied leks.	Partially Revised - revised for clarity and consistency across Montana/Dakotas BLM

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language in Objective SSS 2. This objective is deleted and replace with the text below.] The habitat objectives for GRSG (Table 2-2) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-6 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	Completely Revised - Table 2-2 removed, refer to Appendix 4 for indicator table
No similar action.	New predation actions added

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Greater Sage-Grouse Management Areas	
Objective SSS 3: Maintain a resilient population of GRSG in Idaho and Southwestern Montana.	Completely Revised
Objective SSS 4: Designate GRSG management areas and associated management to maintain a resilient population and to designate strategically located adjacent areas to provide a buffer from unpredictable habitat loss such as wildfire to the resilient population areas.	Completely Revised
Objective SSS 5: Identify and strategically protect larger intact sagebrush areas and areas of lower fragmentation to maintain GRSG population persistence.	No change (same as 2015)
MD SSS-1: Designate five GRSG Conservation Areas (see Glossary) within the subregion to form the geographic basis for achieving population objectives; evaluating the disturbance density and adaptive regulatory triggers; and tailor adaptive management responses. These conservation areas are depicted in Figure 2-13. These areas are referred to as Mountain Valleys, Desert, West Owyhee, Southern and Southwestern Montana Conservation Areas. <u>Conservation Area Description</u> Mountain Valleys Conservation Area – generally located north of the Snake River Plain, including GRSG habitat in the Salmon and Challis areas, and habitat in west-central population area. It extends west from Rexburg, north and west of Highway 33 to Howe, north and west of Highway 33/22 to Arco, north and west of Highway 26/20/93 to Carey, north and west of Highway 20 west to Hill City, north and west of Highway 20 to the Dylan Karaus Road, west to Canyon Creek. Canyon Creek to the confluence with the Snake River form the western boundary. Desert Conservation Area – located north of the Snake River and south of the Mountain Valleys Conservation Area. It extends from the confluence of Canyon Creek and the Snake River, eastward to Idaho Falls. The Snake River and Henry's Fork form the eastern boundary. West Owyhee Conservation Area – located south of the Snake River and west of the Bruneau River. Southern Conservation Area – located south of the Snake River and east of the Bruneau River, including East Idaho uplands and Bear Lake Plateau, and the Utah portion of the Sawtooth National Forest in Box Elder County. Southwestern Montana – located in southwestern Montana - encompassing the Dillon Butte BLM Field Office and Beaverhead-Deerlodge National Forest boundaries (the Butte RMP is not being amended and since there are limited GRSG federal GHMA, management actions do not apply in the Butte Field Office). In general, GRSG habitats in the Desert and West Owyhee CAs are relatively contiguous, while those in the Mountain Valleys and Southern CAs tend to be more fragmented due to more complex topography, and elevational differences and/or effects from wildfires, agriculture, urbanization or other factors.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD SSS 2: Within each Conservation Area designate GRSG Habitat Management Areas: Priority, Important and General Habitat Management Areas (Figure 2-1). Priority Habitat Management Areas (PHMA) focus on conserving the two key meta-populations in the subregion. PHMA encompasses areas with the highest conservation value to GRSG, based on the presence of larger leks, habitat extent, important movement and connectivity corridors and winter habitat. PHMA include adequate area to accommodate continuation of existing land uses and landowner activities. Important Habitat Management Areas (IHMA) contain additional habitat and populations that provide a management buffer for the PHMA and to connect patches of PHMA. IHMA encompasses areas of generally moderate to high conservation value habitat and/or populations and in some Conservation Areas includes areas beyond those identified by USFWS as necessary to maintain redundant, representative and resilient populations (Priority Areas for Conservation (PACs)). IHMA are typically adjacent to PHMA but generally reflect somewhat lower GRSG population status and/or reduced habitat value due to disturbance, habitat fragmentation or other factors. There are no IHMA designated within the Southwestern Montana Conservation Area. General Habitat Management Areas (GHMA) encompass habitat that is outside of PHMA or IHMA. GHMA contain approximately 10 percent of the occupied leks that are also of relatively low male attendance compared to leks in PHMA or IHMA. GHMA are generally characterized by lower quality disturbed or patchy habitat of low lek connectivity.	Completely Revised
MD SSS 3: In Idaho, designate PHMA and IHMA to encompass 90 percent of the breeding males in Idaho. In Montana, designate PHMA to encompass Montana Fish, Wildlife, and Parks 2009 Greater Sage Grouse Core Area designations.	Completely Revised
MD SSS 4: Annually prioritize Conservation Areas at the state scale considering results of the annual adaptive regulatory trigger evaluations relative to implementation of restoration and mitigation activities.	Completely Revised
MD SSS 5: Prioritize activities and mitigation to conserve, enhance and restore GRSG habitats (i.e., fire suppression activities, fuels management activities, vegetation treatments, invasive species treatments etc.) first by Conservation Area, if appropriate (Conservation Area under adaptive management or at risk of meeting an adaptive management soft or hard trigger), followed by PHMA, then IHMA then GHMA within the Conservation Areas. Local priority areas within these areas will be further refined as a result of completing the GRSG Wildfire and Invasive Species Habitat Assessments as described in Appendix H. This can include projects outside GRSG habitat when those projects will provide a benefit to GRSG habitat.	Completely Revised
MD SSS 6: The management area map and Biologically Significant Unit (BSU) baseline map will be re- evaluated in conjunction with plan evaluation processes (i.e. approximately every 5 years). This re-evaluation can indicate the need to adjust PHMA, IHMA or GHMA or the habitat baseline. These adjustments can occur upon completion of the appropriate analysis and process (e.g., plan amendment) to review the allocation decisions based on the map. Results from the Wildfire and Invasive Species Assessments, such as identified focal or emphasis areas will also be used to help inform mapping adjustments during this evaluation.	Completely Revised

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MD SSS 7: GRSG habitat within the project area will be assessed during project-level NEPA analysis within the management area designations (PHMA, IHMA, GHMA). Project proposals and their effects will be evaluated based on the habitat and values affected.	Completely Revised
MD SSS 8: Idaho BLM will annually update the Key Habitat map, in order to reflect habitat changes resulting from wildfire, succession, and vegetation treatments that occurred or were observed since the last update. Key habitat includes areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year. This map also identifies potential restoration areas (perennial grassland annual grasslands, conifer encroachment and recent burns). This map a broad scale current vegetation map that changes as habitat is lost or restored. The Key Habitat Map is not an allocation decision such as PHMA, IHMA, and GHMA. Updates to the map will also occur if it is determined that mapping errors or omissions have occurred, or that radio-telemetry studies indicate that GRSG are consistently utilizing an area. Updates are also intended to capture recommendations by the field offices, GRSG Local Working Groups, or agency partners in GRSG conservation. Project-level evaluations of GRSG habitat during the NEPA process can also be used to inform the annual update.	Completely Revised
MD SSS 9: Areas of habitat outside of delineated habitat management areas identified during the Key habitat update process will be evaluated during site specific NEPA for project level activities and GRSG required design features (Appendix C) and buffers (Appendix B) will be included as part of project design. These areas will be further evaluated during plan evaluation and the 5-year update to the management areas, to determine whether they should be included as PHMA, IHMA, or GHMA.	Completely Revised
MD SSS 10: Designate Sagebrush Focal Areas (SFA) as shown on Figure 1-2. SFA will be managed as PHMA, with the following additional management: Recommended for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights. Managed as NSO, without waiver, exception, or modification, for fluid mineral leasing. Prioritized for vegetation management and conservation actions in these areas, including, but not limited to land health assessments, wild horse and burro management actions, review of livestock grazing permits/leases, and habitat restoration (see specific management sections).	Completely Revised
Adaptive Management	
MD SSS 11: Idaho: Use hard and soft population and habitat triggers to determine an appropriate management response as described in MD SSS 16 to MD SSS 26. Hard and soft triggers responses are applied at the Conservation Area (MD SSS-1) scale (Appendix E).	Completely Revised
MD SSS 12: Utilize monitoring information collected through the Monitoring Framework (Appendix D) to determine when adaptive regulatory triggers have been met.	Completely Revised

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MD SSS 13: Idaho: BLM will maintain GRSG habitat information, through use of the Key Habitat map or latest sagebrush/vegetation map, which will be used to track and identify habitat changes to assess the habitat trigger in the adaptive management approach. Key habitat map updates are made each winter by BLM in coordination with the Forest Service and IDFG, using the process described in Appendix F of the FEIS.	Completely Revised
MD SSS 14: Idaho: BLM will coordinate with the IDFG regarding population information collected and maintained by the IDFG to track and identify population changes to assess the population trigger in the adaptive management approach.	Completely Revised
MD SSS 15: Idaho: The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD, and twice each year thereafter the applicable monitoring information will be reviewed to determine if any adaptive management triggers have been met. Montana: The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD and then at a minimum, analyzed annually thereafter.	Completely Revised
MD SSS 16: Idaho: Adaptive habitat triggers will be individually calculated across all ownerships within the BSUs (Appendix E). The BSU is defined as the IDFG modeled nesting and wintering habitat (IDFG 2013, unpublished data) within PHMA and IHMA within a Conservation Area. The sagebrush component of the BSU is represented by the Key habitat within the BSU present during the 2011 baseline and as mapped during subsequent annual Key habitat map updates. Key habitat is defined as areas of generally intact sagebrush that provide GRSG habitat during some portion of the year (ISAC 2006).	Completely Revised
MD SSS 17: Habitat Hard Triggers are defined as: • A 20 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline, inclusive of all land ownerships or • A 20 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.	Completely Revised
MD SSS 18: Habitat Soft Triggers are defined as: • A 10 percent loss of Key Habitat within the BSU of the PHMA of a Conservation Area when compared to the 2011 baseline; or • A 10 percent loss of Key Habitat within the BSU of the IHMA of a Conservation Area when compared to the 2011 baseline.	Completely Revised

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MD SSS 19: Population Hard Triggers are defined as: • A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within PHMA within a Conservation Area over the same 3-year period; or • A 20 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) significantly below 1.0 within IHMA within a Conservation Area over the same 3-year period. • Significance is defined by the 90 percent confidence interval around the current 3-year finite rate of change. If the 90 percent confidence interval is less than, and does not include 1.0, then the finite rate of change is considered significant. The finite rate of change and variance will be calculated following Garton et al. (2011).	Completely Revised
MD SSS 20: Population Soft Triggers are defined as: • A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below • within PHMA within a Conservation Area over the same 3-year period; or • A 10 percent decline in the current 3-year average of total maximum number of males counted compared to the 2011 maximum male baseline and a finite rate of change (λ) below • 1.0 within IHMA within a Conservation Area over the same 3-year period.	Completely Revised
MD SSS 21: When any of the Criteria for Soft Triggers have been met the Implementation Team will evaluate causal factors and recommend additional potential implementation level activities (Appendix E).	Completely Revised
MD SSS 22: When any of the Criteria for Hard Triggers have been met then all PHMA management actions will be applied to the IHMA within that Conservation Area and the Implementation Team will evaluate causal factors and recommend additional potential implementation level activities.	Completely Revised
MD SSS 23: If an adaptive regulatory trigger is tripped and livestock grazing is identified as a probable limiting factor then adjustments will follow the Adaptive Grazing Management Response described in Appendix E.	Completely Revised
MD SSS 24: Remove any adaptive management response when the habitat or maximum male population count (i.e., 3-year average) returns to or exceeds the 2011 baseline levels within the associated Conservation Area in accordance with the Adaptive Management Strategy (Appendix E). In such a case, changes in management allocations resulting from a tripped trigger will revert back to the original allocation (MD SSS 22).	Completely Revised
MD SSS 25: Montana: Follow the NPT Adaptive Management Guidance and Sideboards. When a hard trigger is hit in a BSU, the designated response will be put in place in that BSU. Triggers and responses have been developed with local state and USFWS experts (Appendix E).	Completely Revised

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MD SSS 26: Idaho and Montana: When a hard trigger is hit in a BSU within a PAC that has multiple BSUs, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the causal factor, put project-level responses in place, as appropriate and discuss further appropriate actions to be applied. The team will also investigate the status of the hard triggers in other BSUs within the PAC and will invoke the appropriate plan response.	Completely Revised
Anthropogenic Disturbance	
[Plan Maintenance Action in 2018 conducted to acknowledge adoption of the State of Montana Habitat Conservation Program Density Disturbance Calculation Tool, changed Montana BLM Field Offices to a 5% cap. See DOI-BLM-MT-2018-0005-CX.] MD SSS 27: For Idaho and Montana, if the 3 percent anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA (or IHMA in Idaho) Habitat Management Areas in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within GRSG PHMA and IHMA in any given BSU until the disturbance has been reduced to less than the cap, as measured according to the Disturbance and Adaptive Management Appendix (Appendix E) for the intermediate scale. For Idaho, if the 3 percent disturbance cap is exceeded on all lands (regardless of land ownership) within a proposed project analysis area (Appendix E) in a PHMA (or IHMA in Idaho), then no further anthropogenic disturbance will be permitted by BLM until disturbance in the proposed project analysis area has been reduced to maintain the area under the cap (subject to applicable laws and regulations, such as the General Mining Law of 1872, as amended, valid existing rights, etc.). For Montana, if the 3 percent disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.) will be permitted by BLM within PHMA in a project analysis area until the disturbance has been reduced to less than the cap. If the BLM determines that the State of Montana has adopted a GRSG Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational Density Disturbance Calculation Tool, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within a project analysis area. In both Idaho and Montana, within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines)	Completely Revised

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and the designated width of a corridor will not be exceeded as a result of any project co-location. For Idaho the BSU (Figure 2-2) is defined as the currently mapped nesting and wintering habitat within PHMA and IHMA within a Conservation Area, inclusive of all ownerships. For Montana the BSU is defined as the PHMA in Montana. Anthropogenic disturbance excludes habitat disturbance from wildfire and fuels management activities and includes the following developments (see Appendix E for further details): • Oil and Gas Wells and Development Facilities • Coal Mines • Wind Towers • Solar Fields • Geothermal Development Facilities • Mining (Active Locatable, Non-Energy Leasable and Saleable Developments) • Roads • Railroads • Power lines • Communication Towers • Other Vertical Structures • Coal bed Methane Ponds • Meteorological Towers (e.g., wind energy testing) • Nuclear Energy Facilities • Airport Facilities and Infrastructure • Military Range Facilities and Infrastructure • Hydroelectric Plants • Recreation Areas Facilities and infrastructure For Idaho this disturbance is measured by direct footprint or by ROW width for linear features (power lines, pipelines and roads). For Montana disturbance is measured similar to the Wyoming Disturbance Density Calculation Tool process described in Appendix E.	*(see above)*
Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of land ownership) in the Priority Habitat Management Area within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area.	No change (same as 2015)
MD SSS 28: New anthropogenic disturbances within PHMA or IHMA within a Conservation Area where the disturbance cap is already exceeded from any source or where the proposed development will result in the cap being exceeded will not be allowed in within that Conservation Area until enough habitat has been restored within that Conservation Area to maintain the area under this cap (subject to valid existing rights).	Completely Revised

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MD SSS 29: New anthropogenic disturbances within PHMA (Idaho only): Anthropogenic Disturbance Screening Criteria. In order to avoid surface-disturbing activities in PHMA, priority will be given to development (including ROWs, fluid minerals and other mineral resources subject to applicable stipulations) outside of PHMA. When authorizing development in PHMA, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. In addition to the PHMA and IHMA Anthropogenic Disturbance Development Criteria (MD SSS 30), the following criteria must all be met in the project screening and assessment process: a. The population trend for the GRSG within the associated Conservation Area is stable or increasing over a three-year period and the population levels are not currently engaging the adaptive management triggers (this applies strictly to new authorizations; renewals and amendments of existing authorizations will not be subject to this criteria when it can be shown that long-term impacts from those renewals or amendments will be substantially the same as the existing development); b. The development with associated mitigation will not result in a net loss of GRSG Key habitat and mitigation will provide a net conservation benefit to the respective PHMA; c. The project and associated impacts will not result in a net loss of GRSG Key habitat or habitat fragmentation or other impacts causing a decline in the population of the species within the relevant Conservation Area (the project will be outside Key habitat in areas not meeting desired habitat conditions or the project will provide a benefit to habitat areas that are functioning in a limited way as habitat); d. The development cannot be reasonably accomplished outside of the PHMA; or can be either: 1) developed pursuant to a valid existing authorization; or 2) is co-located within the footprint of existing infrastructure (proposed actions will not increase the 2011 authorized footprint and associated impacts more than 50 percent, depending on industry practice). e. Development will be implemented adhering to the required design features (RDF) described in Appendix C; f. The project will not exceed the disturbance cap (MD SSS 27) g. The project has been reviewed by the State Implementation Team and recommended for consideration by the Idaho Governor.	Completely Revised

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MD SSS 30: The following Anthropogenic Disturbance Development Criteria must be met in the screening and assessment process for proposals in PHMA and IHMA to discourage additional disturbance in PHMA and IHMA (as described in MD LR 2 and MD RE 1; applies to Idaho only): a. Through coordination with the USFWS and State of Idaho (as described in MD CC 1), it is determined that the project cannot be achieved, technically or economically, outside of this management area; and b. The project siting and/or design should best reduce cumulative impacts and/or impacts on GRSG and other high value natural, cultural, or societal resources; this may include co- location within the footprint for existing infrastructure, to the extent practicable; and c. The project results in a net conservation gain to GRSG Key habitat or with beneficial mitigation actions reduces habitat fragmentation or other threats within the Conservation Area; and d. The project design mitigates unavoidable impacts through appropriate compensatory mitigation; and e. Development will be implemented adhering to the RDFs described in Appendix C. f. The project will not exceed the disturbance cap (MD SSS 27). In Montana, the BLM will apply the project/action screen and mitigation process (Appendix J)	Completely Revised
MD SSS 31: Co-locating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management area. Colocation for various activities is defined as: • Communication Sites – The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan. • Electrical Lines – Installation of new ROWs adjacent to current ROWs boundaries, not necessarily placed on the same power poles. • Other Rights-of-Way – The installation of new ROWs within the existing footprint of an approved ROW boundary or adjacent to an approved ROW boundary. • Designated Corridors – The installation of new rights-of-way within the existing corridor or adjacent to the existing corridor.	Completely Revised

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MD SSS 32: Incorporate RDFs as described in Appendix C in the development of project or proposal implementation, reauthorizations or new authorizations and suppression activities, as conditions of approval (COAs) into any post-lease activities and as best management practices for locatable minerals activities, to the extent allowable by law, unless at least one of the following conditions can be demonstrated and documented in the NEPA analysis associated with the specific project: A specific RDF is not applicable to the site-specific conditions of the project or activity; A proposed design feature or BMP is determined to provide equal or better protection for GRSG or its habitat; or Analysis concludes that following a specific RDF will provide no more protection to GRSG or its habitat than not following it, for the project being proposed.	Completely Revised
MD SSS 33: Conduct implementation and project activities, including construction and short-term anthropogenic disturbances consistent with seasonal habitat restrictions described in Appendix C.	Completely Revised
MD SSS 34: RDFs and seasonal habitat restrictions will not be required for emergency or short-term activities necessary to protect and preserve human life or property.	Completely Revised
MD SSS 35: In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B.	Completely Revised
MD SSS 36: Incorporate appropriate conservation measures for slickspot peppergrass (Lepidium papilliferum) as described in the 2014 Conservation Agreement (as updated, amended or reauthorized) into implementation and project design within slickspot peppergrass habitat in the Jarbidge and Four Rivers Field Offices to avoid and minimize impacts on slickspot peppergrass.	Completely Revised
Monitoring	
MD SSS 37: Once FIAT Assessments are complete, annually complete a review of FIAT Assessment implementation efforts within GRSG habitat with appropriate USFWS and state agency personnel.	Completely Revised
MD SSS 38: Monitor the effectiveness of projects (e.g., fuel breaks. fuels treatments) until objectives have been met or until it is determined that objectives cannot be met, according to the monitoring schedule identified for project implementation.	No change (same as 2015)
MD SSS 39: Monitor invasive vegetation post vegetation management treatment.	No change (same as 2015)
MD SSS 40: Monitor project construction areas for noxious weed and invasive species for at least 3 years, unless control is achieved earlier.	No change (same as 2015)
MD SSS 41: Use lek, nesting and winter habitat maps and key habitat map (updates) to annually assess GRSG population and habitat status in the context of the adaptive management triggers.	Completely Revised
MD SSS 42: Continue to support updates to the Key Habitat map to track vegetation changes in relation to GRSG habitat on a yearly basis, until such a time this process is replaced. The process used to update the Key Habitat Map is described in Appendix F of the FEIS.	Completely Revised

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MD SSS 43: Monitor GRSG habitat as described in the monitoring framework plan (Appendix D) in coordination with IDFG and Montana FWP.	Partially Revised – Updated monitoring framework and clarify coordination aspect (covered in monitoring framework already)
Vegetation (VEG)	
Objective VEG 1: Reconnect and expand areas of higher native plant community integrity/rangeland health to increase the extent of high quality habitat and, where possible, to accommodate the future effects of climate change.	No change (same as 2015)
Objective VEG 2: Increase the amount and functionality of seasonal habitats by: a. Increasing or enhancing canopy cover and average patch size of sagebrush. b. Increasing the amount, condition and connectivity of seasonal habitats. c. Protecting or improving GRSG migration/movement corridors. d. Reducing conifer encroachment within GRSG seasonal habitats. e. Improving understory (grass, forb) and/or riparian condition within breeding and late brood- rearing habitats. f. Reducing the extent of annual grasslands within and adjacent to PHMA and IHMA. Decadal treatment objectives by population area are identified in Table 2-3, Estimated Acres of Treatment Needed within a 10-Year Period to Achieve Vegetation Objectives on BLM-Administered Lands1.	Partially Revised – Remove IHMA and decadal treatment table/language.
Objective VEG 3: In all SFA and PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush canopy cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	Partially Revised – Clarified direction, and Objective SSS 1 should be consistent with this one
Sagebrush Steppe	
MD VEG 1: Implement habitat rehabilitation or restoration projects in areas that have potential to improve GRSG habitat using a full array of treatment activities as appropriate, including chemical, mechanical and seeding treatments.	No change (same as 2015)
MD VEG 2: Implement vegetation rehabilitation or manipulation projects to enhance sagebrush cover or to promote diverse and healthy grass and forb understory to achieve the greatest improvement in GRSG habitat based on FIAT Assessments, HAF assessments, other vegetative assessment data and local, site specific factors that indicate sagebrush canopy cover or herbaceous conditions do not meet habitat management objectives (i.e. is minimal or exceeds optimal characteristics). This may necessitate the use of prescribed fire as a site preparation technique to remove annual grass residual growth prior to the use of herbicides in the restoration of certain lower elevation sites (e.g., Wyoming big sagebrush) but such efforts will be carefully planned and coordinated to minimize impacts on GRSG seasonal habitats.	Completely Revised

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MD VEG 3: Require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success (Richards et al. 1998). Non-native seeds may be used as long as they support GRSG habitat objectives (Pyke 2011) to increase probability of success, when adapted seed availability is low or to compete with invasive species especially on harsher sites.	No change (same as 2015)
MD VEG 4: Implement management changes in restoration and rehabilitation areas, as necessary, to maintain suitable GRSG habitat, improve unsuitable GRSG habitat and to ensure long-term persistence of improved GRSG habitat (Eiswerth and Shonkwiler 2006). Management changes can be considered during livestock grazing permit renewals, travel management planning, and renewal or reauthorization of ROWs.	Completely Revised
MD VEG 5: Consider establishing seed harvest areas that are managed for seed production (Armstrong 2007) to provide a reliable source of locally adapted seed to use during rehabilitation and restoration activities.	No change (same as 2015)
MD VEG 6: Allocate use of native seed to GRSG or ESA listed species habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from ESR projects outside of PHMA or IHMA to those inside it. Where probability of success or native seed availability is low, nonnative seeds may be used as long as they meet GRSG habitat conservation objectives (Pyke 2011). Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.	Partially Revised – No IHMA for Dillon
MD VEG 7: During land health assessments, evaluate the relative value of existing nonnative seeding within GRSG habitat as: 1) a component of a grazing system allowing improvement of adjacent native vegetation, 2) development of a forage reserve, 3) incorporation into a fuel break system (Davies et al. 2011) or 4) restoration/diversification for GRSG habitat improvement. Where appropriate and feasible, diversify seedings, or restore to native vegetation when potential benefits to GRSG habitat outweigh the other potential uses of the non-native seeding, with emphasis on PHMA and IHMA. Allow recolonization of seedings by sagebrush and other native vegetation.	Partially Revised – revised direction to clarify and remove IHMA reference
Conifer Encroachment	
MD VEG 8: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and tools like the FIAT report (Chambers et. al., 2014) will help refine the location for specific areas to be treated.	Partially Revised – revised direction to clarify and remove FIAT reference
Invasive Species	
MD VEG 9: Incorporate results of the FIAT Assessments into projects and activities addressing invasive species as appropriate.	Completely Revised
MD VEG 10: Implement noxious weed and invasive species control using integrated vegetation management actions per national guidance and local weed management plans for Cooperative Weed Management Areas in cooperation with State and Federal agencies, affected counties, and adjoining private lands owners.	No change (same as 2015)

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MD VEG 11: Conduct integrated weed management actions for noxious and invasive weed populations that are impacting or threatening GRSG habitat quality using a variety of eradication and control techniques including chemical, mechanical and other appropriate means.	No change (same as 2015)
MD VEG 12: Require project proponent (projects described in MD SSS 27 and which are included in the anthropogenic disturbance cap evaluation) to ensure that noxious weeds and invasive species caused as a result of the project are treated to eliminate establishment on the disturbed project construction areas for at least 3 years and monitored and treated during the life of the project.	Partially Revised – revised with new disturbance language or connection to Monitoring Framework (surface disturbing activities)
MD VEG 13: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.	No change (same as 2015)
Fire and Fuels Management (FIRE)	
Objective FIRE 1: Design fuel treatments to restore, enhance, or maintain GRSG habitat.	No change (same as 2015)
Objective FIRE 2: Manage wildfires to minimize loss of sagebrush and protect GRSG habitat.	No change (same as 2015
Pre-Suppression	
MD FIRE 1: (Wildfire Preparedness): Support development and implementation of Rangeland Fire Protection Associations (RFPAs) in coordination with the State of Idaho.	No change (same as 2015)
MD FIRE 2: Develop a consistent approach to fire restrictions within GRSG habitat through the existing coordinated inter-agency approach to fire restrictions based upon National Fire Danger Rating System thresholds (fuel conditions, drought conditions, and predicted weather patterns).	No change (same as 2015)
MD FIRE 3: Annually incorporate into existing fire management plans results and updates from the Wildfire and Invasive Species Habitat Assessments (FIAT Assessments) described in Appendix H, to communicate/explain the resource value of GRSG habitat, including fire prevention messages and actions to reduce human-caused ignitions.	Completely Revised
MD FIRE 4: Continue to participate with the Wildland Fire Leadership Council, a cooperative, interagency organization dedicated to achieving consistent implementation of the goals, actions, and policies in the National Fire Plan and the Federal Wildland Fire Management Policy.	No change (same as 2015)
MD FIRE 5: Continue annual coordination meetings held between cooperating agencies that have fire suppression responsibilities. Incorporate Rangeland Fire Protection Associations and other stakeholders into this coordination. Discuss priority suppression areas and distribute maps showing priority suppression areas at both the Conservation Area and the local office levels as based on the adaptive management strategy and FIAT Assessments.	Completely Revised
MD FIRE 6: Ensure firefighter personnel receive annual orientation regarding GRSG habitat and sagebrush management issues as related to wildfire suppression.	No change (same as 2015)
MD FIRE 7: As part of the FIAT Assessments, identify roads, trails, and recreational use areas with high frequency of human caused fires within or adjacent to the PHMA or IHMA. Consider these areas during annual fire restriction evaluations, and as appropriate, through site specific management.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD FIRE 8: Coordinate with Federal, State and local jurisdictions on fire and litter prevention programs to reduce human caused ignitions.	No change (same as 2015)
MD FIRE 9: Implement activities identified within the FIAT Assessments. Suppression	Completely Revised
MD FIRE 10: Complete Wildland Fire and Invasive Species Assessments (FIAT Assessments) as described within Appendix H and incorporate results into appropriate Fire Management Plans as they are completed. FIAT Assessments are interdisciplinary evaluations of the threats posed by wildfire and invasive species, as well as identification of focal and emphasis habitats/treatment opportunities for fuels management, fire management, and restoration. These FIAT Assessments identify focal and emphasis habitats and describe strategies for fuels management, suppression and restoration activities. Focal and Emphasis Habitats identified through the FIAT Assessment to further refine priority areas for treatments to reduce the threats posed by wildfire, invasive annual grass and conifer expansion.	Completely Revised
MD FIRE 11: As part of the FIAT Assessments incorporate a wildfire response time analysis focusing on response time to identified priority areas within PHMA and IHMA or on those fires that have the potential to impact PHMA and IHMA. Incorporate findings into Unit Initial Attack program that determines initial attack resources.	Completely Revised
MD FIRE 12: As part of the FIAT Assessment incorporate a water capacity analysis for suppression purposes, including potential private water sources. Utilized the analysis to ensure water availability for response to fire in or threatening PHMA and IHMA during initial attack.	Completely Revised
MD FIRE 13: During high fire danger conditions, stage initial attack and secure additional resources closer to priority areas identified in the FIAT Assessments, based on anticipated fires and weather conditions, with particular consideration of the West Owyhee, Southern and Desert Conservation Areas to ensure quicker response times in or near GRSG habitat after considerations and placement of resources to protect human life and property.	Completely Revised
MD FIRE 14: Utilize a full range of fire management strategies and tactics through strategic wildfire suppression planning consistent with appropriate management response and within acceptable risk levels, to achieve resource objectives for GRSG habitat consistent with land use plan direction. Utilizing both direct and indirect attack as appropriate to limit the overall amount of GRSG habitat burned. This can include suppressing fires in intact sagebrush habitats; limiting fire growth in GHMA when suppression resources are available or managing wildfire for resource benefit in areas of conifer (juniper) encroachment.	No change (same as 2015)
MD FIRE 15: Suppression priorities: The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection. Maintaining GRSG habitat will be the highest natural resources priority immediately after human life and property, commensurate with threatened and endangered species habitat or other critical habitats to be protected.	No change (same as 2015)

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD FIRE 16: Ensure close coordination with federal and state firefighters including the Rangeland Fire Protection Associations during suppression activities.	No change (same as 2015)
Fuels Management	
MD FIRE 17: Design and implement fuels treatments that will reduce the potential start and spread of unwanted wildfires and provide anchor points or control lines for the containment of wildfires during suppression activities with an emphasis on maintaining, protecting, and expanding sagebrush ecosystems and successfully rehabilitated areas and strategically and effectively reduce wildfire threats in the greatest area.	No change (same as 2015)
MD FIRE 18: Enhance (or maintain/retain) sagebrush canopy cover and community structure to match expected potential for the ecological site and consistent with GRSG habitat objectives unless fuels management objectives requires additional reduction in sagebrush cover to meet strategic protection of GRSG habitat. Closely evaluate the benefits of the fuel management treatments against the additional loss of sagebrush cover on the local landscape in the NEPA process.	No change (same as 2015)
MD FIRE 19: Apply appropriate seasonal restrictions for implementing vegetation and fuels management treatments according to the type of seasonal habitats present. Allow no treatments in known winter range unless the treatments are designed to strategically reduce wildfire risk around and/or in the winter range and will protect, maintain, increase, or enhance winter range habitat quality. Ensure chemical applications are utilized where they will assist in success of fuels treatments. Strategically place treatments on a landscape scale to prevent fire from spreading into PHMA or WUI.	No change (same as 2015)
MD FIRE 20: Develop a fuels continuity and management strategy to expand, enhance, maintain and protect GRSG habitat informed by the FIAT Assessments completed as described in Appendix H.	Completely Revised
MD FIRE 21: When developing the fuels management strategy as part of the FIAT Assessment described in Appendix H consider up-to-date fuels profiles; land use plan direction; current and potential habitat fragmentation; sagebrush and GRSG ecological factors; active vegetation management steps to provide critical breaks in fuel continuity where appropriate; incorporate a comparative risk analysis with regard to the risk of increased habitat fragmentation from a proposed action versus the risk of large scale fragmentation posed by wildfires if the action is not taken.	Completely Revised
MD FIRE 22: Fuel treatments will be designed through an interdisciplinary process to expand, enhance, maintain, and protect GRSG habitat which considers a full range of cost effective fuel reduction techniques, including: chemical, biological (including grazing and targeted grazing), mechanical and prescribed fire treatments.	No change (same as 2015)
MD FIRE 23: Existing and proposed linear ROWs can be considered for use and maintenance as vegetated fuel breaks in appropriate areas (this activity may or may not be part of the ROW permit or the responsibility of the permit holder, in cases where this activity is considered part of mitigation for project design then it will be appropriately included as part of the ROW permit and the responsibility of the permit holder for development and maintenance).	No change (same as 2015)

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD FIRE 24: Fuel breaks will incorporate existing vegetation treatments (seedings), rocky areas or other appropriate topography or features or be located adjacent to existing linear disturbance areas where appropriate. Fuel breaks should be placed in areas with the greatest likelihood of compartmentalizing a fire and/or to foster suppression options to protect existing intact habitat.	No change (same as 2015)
MD FIRE 25: Strategically pre-treat areas to reduce fine fuels consistent with areas and results identified within the Wildfire and Invasive Species Assessments.	Completely Revised
MD FIRE 26: Protect vegetation restoration and rehabilitation efforts/projects from subsequent fire events.	No change (same as 2015)
MD FIRE 27: Targeted grazing as a fuels treatment to adjust the vegetation conditions to reduce the potential start and spread of wildfires may be implemented within existing grazing authorizations if feasible such as through temporary non-renewable authorizations, or through contracts, agreements or other appropriate means separate from existing grazing authorizations and permits.	No change (same as 2015)
MD FIRE 28: Targeted grazing to achieve fuels management objectives should conform to the following criteria: a. Targeted grazing should be implemented strategically on the landscape, and directly involve the minimum footprint and grazing intensity required to meet fuels management objectives. b. Conform to the applicable Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Idaho or Montana) at the assessment scale (pasture/watershed). Where feasible and applicable coordinate with the grazing permittee to strategically reduce fuels through livestock management within the Mandatory Terms and Conditions of the applicable grazing authorizations	No change (same as 2015)
MD FIRE 29: Prioritize the use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low or non-economical, nonnative seeds may be used to meet GRSG habitat objectives to trend toward restoring the fire regime. When reseeding, use fire resistant native and nonnative species, as appropriate, to provide for fuel breaks.	No change (same as 2015)
MD FIRE 30: Maintain effectiveness of fuels projects, including fuel breaks, to ensure long-term success, including persistence of seeded species and/or other treatment components while maintaining the integrity of adjacent vegetation.	No change (same as 2015)

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD FIRE 31: If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plan will address: • why alternative techniques were not selected as a viable options; • how GRSG goals and objectives will be met by its use; • how the COT Report objectives will be addressed and met; • a risk assessment to address how potential threats to GRSG habitat will be minimized. Allow prescribed fire as a vegetation or fuels treatment in Wyoming big sagebrush sites or other xeric sagebrush species sites, or in areas with a potential for post-fire exotic annual dominance only after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire can be used to meet specific fuels objectives that will protect Greater Sage-Grouse habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Allow prescribed fire in known sage-grouse winter range only after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.	Partially Revised – revised direction to clarify
Post Fire Management	
MD FIRE 32: Utilize the findings and Restoration/Rehabilitation Strategy developed as part of the FIAT Assessment process described in Appendix H to determine if GRSG rehabilitation actions are needed, based on ecological potential, and direct emergency stabilization and rehabilitation (ESR) (BLM) actions after fire.	Completely Revised
MD FIRE 33: Incorporate GRSG Habitat Management Objectives into ESR/BAER plans based on site potential and in accordance with the Restoration/Rehabilitation Strategy developed as a result of the FIAT Assessments.	Completely Revised
MD FIRE 34: Provide adequate rest from livestock grazing to allow natural recovery of existing vegetation and successful establishment of seeded species within burned/ESR areas. All new seedings of grasses and forbs should not be grazed until at least the end of the second growing season, and longer as needed to allow plants to mature and develop robust root systems which will stabilize the site, compete effectively against cheatgrass and other invasive annuals, and remain sustainable under long-term grazing management. Adjust other management activities, as appropriate, to meet ESR objectives.	No change (same as 2015)
MD FIRE 35: Adjust, as appropriate, livestock management on adjacent unburned areas to mitigate the effect of the burn on local GRSG populations.	No change (same as 2015)
MD FIRE 36: Following seedling establishment, modify grazing management practices if needed to achieve long-term vegetation and habitat objectives.	No change (same as 2015)

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Livestock Grazing (LG)	
MD LG 1: Maintain existing areas designated as available or unavailable for livestock grazing. Existing active AUMs for livestock grazing within the planning area will not be changed at the broad scale, though the number of AUMs available on an allotment may be adjusted based on site-specific conditions to meet management objectives during term permit renewals, AMP development, or other appropriate implementation planning. Additionally, temporary adjustments can be made annually to livestock numbers, the number of AUMs, and season of use in accordance with applicable regulations.	Completely Revised
MD LG 2: Prioritize BLM land health assessments and processing of BLM grazing permits consistent with management area prioritization (MD SSS 4), unless other higher priority considerations exist (MD LG 15) or other factors such as threatened, endangered and proposed species habitat that livestock grazing can affect. Where possible, conduct land health assessments at the watershed, or other meaningful landscape-scale.	Completely Revised
MD LG 3: Where opportunities exist, coordinate with other land managers to encourage livestock operations that utilize mixed federal, private and/or state land to be managed at the landscape scale to benefit GRSG and their habitat across land ownerships.	Completely Revised
MD LG 4: PHMA & IHMA: During the land health assessment process, identify the type(s) of seasonal habitat the assessed areas are capable of supporting. Utilize the habitat assessment framework, (Stiver et al. 2015) or other BLM approved methodology, in accordance with current policy and guidance to determine whether vegetation structure, condition and composition are meeting GRSG habitat objectives including riparian and lentic areas (Objective SSS 2; Table 2-2). Use appropriate Ecological Site Descriptions, reference sheets and state and transition models to inform desired habitat conditions and expected responses to management changes for the land unit being assessed.	Completely Revised
MD LG 5: When modifying grazing management, analyze indirect impacts on habitat, including changes in fuel loading and wildfire behavior.	Completely Revised
MD LG 6: When livestock management practices are determined to not be compatible with meeting or making progress towards achievable habitat objectives following appropriate consultation, cooperation and coordination, implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications include, but are not limited to, changes in: • Season or timing of use; • Numbers of livestock; • Distribution of livestock use; • Duration and/or level of use; • Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011); and • Grazing schedules (including rest or deferment). *Not in Priority Order	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD LG 7: Where opportunities exist, establish forage reserves to facilitate restoration and rehabilitation efforts in GRSG habitat areas. A forage reserve is an area that is set aside for use as needed by various permittees who might be displaced by wildfire, ESR, restoration efforts, etc. rather than having a term permit issued for grazing like a regular allotment.	Completely Revised
MD LG 8: PHMA & IHMA - Where practical, design pasture rotations to utilize non-native perennial grass seedings and/or annual grasslands, during GRSG nesting season annually or periodically.	Completely Revised
MD LG 9: Evaluate the locations where salt/supplements are placed, coordinate salt/supplements placement to reduce impacts on GRSG habitat (e.g., existing disturbed areas).	Completely Revised
MD LG 10: Incorporate RDFs into Terms and Conditions for crossing permits to limit disturbance of occupied leks when trailing livestock across BLM administered lands in the spring. Work with permittees in locating over-nighting, watering and bedding locations to minimize impacts on seasonal habitats.	Completely Revised
MD LG 11: Design any new structural range improvements, following appropriate cooperation, consultation and coordination, to minimize and/or mitigate impacts on GRSG habitat. Any new structural range improvements should be placed along existing disturbance corridors or in unsuitable habitat, to the extent practical, and are subject to RDFs (Appendix C). Structural range improvement in this context, include, but are not limited to: fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments.	Completely Revised
MD LG 12: During the land health assessment and grazing permit renewal process, evaluate existing livestock management range improvements with respect to their effect on GRSG habitat. Consider removal of projects that are not needed for effective livestock management, are no longer in working condition, and/or negatively affect GRSG habitat, with the exception of functional projects needed for management of habitat for other threatened, endangered or proposed species or other sensitive resources.	Completely Revised
MD LG 13: Prioritize removal, modification or marking of fences or other structures in areas of high collision risk following appropriate cooperation, consultation and coordination to reduce the incidence of GRSG mortality due to fence strikes (Stevens et al. 2012).	Completely Revised
MD LG 14: In response to weather conditions (i.e. drought) adjust grazing management (i.e., delay turnout, adjust pasture rotations, adjust the amount and/or duration of grazing) as appropriate to provide for adequate food and cover for GRSG.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD LG 15: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in Sagebrush Focal Areas (SFA) followed by PHMA outside of the SFA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. Management and conservation action prioritization will occur at the Conservation Area (CA) scale and be based on GRSG population and habitat trends: Focusing management and conservation actions first in SFA followed by areas of PHMA outside SFA. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations.	Completely Revised
MD LG 16: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFA and PHMA will include specific management thresholds, based on GRSG Habitat Objectives Table, Land Health Standards (43 CFR 4180.2) and ecological site potential, and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
MD LG 17: Allotments within SFA, followed by those within PHMA, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks can include monitoring for actual use, utilization, and use supervision. Management and conservation action prioritization will occur at the Conservation Area (CA) scale and be based on GRSG population and habitat trends: Focusing management and conservation actions first in SFA followed by areas of PHMA outside SFA.	Completely Revised
MD LG 18: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR 4110.2-3.	Removed
Wild Horses and Burros (WHB)	
WHB-1: Manage herd management areas (HMAs) in GRSG habitat within established AML ranges to achieve and maintain GRSG habitat objectives (Table 2-2).	Completely revised – Removed (not applicable to Dillon).
WHB-2: Complete rangeland health assessments for HMAs containing GRSG habitat using an interdisciplinary team of specialists (e.g. range, wildlife, and riparian). The priorities for conducting assessments are: 1) HMAs Containing SFA; 2) HMAs containing PHMA; 3) HMAs containing IHMA; 4) HMAs containing GHMA; 5) HMAs containing sagebrush habitat outside of PHMA, IHMA, and GHMA mapped habitat; 6) HMAs without GRSG Habitat.	Completely revised – Removed (not applicable to Dillon).

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
WHB-3: Prioritize gathers and population growth suppression techniques in HMAs in GRSG habitat, unless removals are necessary in other areas to address higher priority environmental issues, including herd health impacts. Place higher priority on Herd Areas not allocated as HMAs and occupied by wild horses and burros in SFA followed by PHMA.	Completely revised – Removed (not applicable to Dillon).
WHB-4: In SFA and PHMA outside of SFA, assess and adjust AMLs through the NEPA process within HMAs when wild horses or burros are identified as a significant causal factor in not meeting land health standards, even if current AML is not being exceeded.	Completely revised – Removed (not applicable to Dillon).
WHB-5: In SFA and PHMA outside of SFA, monitor the effects of wild horse and burro use in relation to GRSG seasonal habitat objectives on an annual basis to help determine future management actions.	Completely revised – Removed (not applicable to Dillon).
WHB-6: Develop or amend herd management area plans (HMAPs) to incorporate GRSG habitat objectives and management considerations for all HMAs within GRSG habitat, with emphasis placed on SFA and other PHMA.	Completely revised – Removed (not applicable to Dillon).
WHB-7: Consider removals or exclusion of wild horse and burros during or immediately following emergency situations (such as fire, floods, and drought) to facilitate meeting GRSG habitat objectives where HMAs overlap with GRSG habitat.	Completely revised – Removed (not applicable to Dillon).
WHB-8: When conducting NEPA analysis for wild horse and burro management activities, water developments, or other rangeland improvements for wild horses, address the direct and indirect impacts on GRSG populations and habitat. Implement any water developments or rangeland improvements using the criteria identified for domestic livestock.	Completely revised – Removed (not applicable to Dillon).
WHB-9: Coordinate with professionals from other federal and state agencies, researchers at universities, and others to utilize and evaluate new management tools (e.g., population growth suppression, inventory techniques, and telemetry) for implementing the wild horse and burro program.	Completely revised – Removed (not applicable to Dillon).
Mineral Resources (MR)	
Fluid Minerals	
Objective MR 1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA, IHMA, and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA, IHMA, and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR 3162.3-1(h).	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Objective MR 2: Where a proposed fluid mineral development project on an existing lease can adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, minimize and apply compensatory mitigation to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an APD or Geothermal Drilling Permit (GDP) for the lease to avoid, minimize, and apply compensatory mitigation to impacts on GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.	Completely Revised
MD MR 1: Idaho and Montana: Areas within SFA will be open to fluid mineral leasing and development and geophysical exploration subject to NSO without waiver, exception, or modification. Areas within PHMA (outside SFA) and IHMA will be open to mineral leasing and development and geophysical exploration subject to NSO with a limited exception (MD MR 3). GHMA will be open to mineral leasing and development and geophysical exploration subject to CSU which includes buffers and standard stipulations.	Completely Revised
MD MR 2: In Idaho, parcels nominated for lease in PHMA or IHMA will be evaluated prior to lease offering to determine if development is feasible. In GHMA, parcels will not be offered for lease if buffers and restrictions (including RDFs) preclude development in the leasing area.	Completely Revised
MD MR 3: PHMA and IHMA: No waivers or modifications to a fluid mineral lease NSO stipulation will be granted. The Authorized Officer may grant an exception to a fluid mineral lease NSO stipulation only where the proposed action: Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or, Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG. Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP amendment. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. Any exceptions to this lease stipulation may be approved by the Authorized Officer only with the concurrence of the State Director. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD MR 4: Incorporate required design features and best management practices appropriate to the management area as COAs when post leasing activity is proposed into any post-lease authorizations.	Completely Revised
MD MR 5: In Montana, prior to leasing conduct a Master Leasing Plan process when all four of the following criteria are met: A substantial portion of the area to be analyzed in the MLP is not currently leased. There is a majority Federal mineral interest. The oil and gas industry has expressed a specific interest in leasing, and there is a moderate or high potential for oil and gas confirmed by the discovery of oil and gas in the general area. Additional analysis or information is needed to address likely resource or cumulative impacts if oil and gas development were to occur where there are: multiple-use or natural/cultural resource conflicts; impacts on air quality; impacts on the resources or values of any unit of the National Park System, national wildlife refuge, or National Forest wilderness area, as determined after consultation or coordination with the NPS, the USFWS, or the Forest Service; or impacts on other specially designated areas. – analyzing likely development scenarios and varying mitigation levels.	Completely Revised
MD MR 6: In Idaho, complete a Master Development Plan, consistent with plan development guide on leases where a producing field is proposed to be developed.	Completely Revised
MD MR 7: Encourage unitization when deemed necessary for proper development and operation of an area (with strong oversight and monitoring). The unitization must be designed in a manner to minimize adverse impacts on GRSG according to the Federal Lease Form, 3100-11, Sections 4 and 6.	No change (same as 2015)
MD MR 8: Issue Written Orders of the Authorized Officer (43 CFR 3161.2) requiring reasonable protective measures consistent with the lease terms where necessary to avoid or minimize impacts on GRSG populations or habitat.	No change (same as 2015)
Locatable Minerals	
MD MR 9: Apply reasonable and appropriate RDFs to locatable minerals, to the extent consistent with applicable law to prevent unnecessary or undue degradation of GRSG habitat when a Plan of Operations is submitted for BLM approval, in accordance with 43 CFR 3809.411(d)(2).	No change (same as 2015)
MD MR 10: Recommend SFA for withdrawal from the General Mining Act of 1872, as amended, subject to valid existing rights.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Salable Minerals	
MD MR 11: PHMA: All PHMA will be closed to mineral materials development. However, existing free use permits and the expansion of existing free use permits may be considered only if the following criteria are met: • the project area disturbance cap is not exceeded within a BSU; • the activity is subject to the provisions set forth in the mitigation framework [Appendix F]; • all applicable required design features are applied; and the activity is permissible under the Idaho exception and development criteria (MD SSS 29 and MD SSS 30) IHMA: All IHMA will be open to mineral materials development, consistent with the Idaho Anthropogenic Disturbance Criteria (MD SSS 30), and subject to RDFs, and buffers. Sales from existing community pits within IHMA will be subject to seasonal timing restrictions (Appendix C).	Completely Revised
GHMA: All GHMA will be open to mineral materials development, subject to RDFs and buffers. Sales from existing community pits within GHMA will be subject to seasonal timing restrictions (Appendix C).	Completely Revised
MD MR 12: Restore salable mineral pits no longer in use to meet GRSG habitat management objectives.	No change (same as 2015)
MD MR 13: Require reclamation bonding that will require restoration of GRSG habitat on new site authorizations for mineral material pits in IHMA (this will not apply to free use permits issued to a government entity such as a county road district, but will apply to non-profit entities).	Completely Revised
MD MR 14: Montana: PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met: • the activity is within the BSU and project area disturbance cap; • the activity is subject to the provisions set forth in the mitigation framework [Appendix F]; • all applicable required design features are applied; and • the activity is permissible under the Montana screening criteria (MD SSS 30) Appendix J.	Completely Revised
Nonenergy Leasable Minerals	
MD MR 15: PHMA are closed to leasing. IHMA and GHMA: Areas within Known Phosphate Leasing Areas (KPLAs) will remain open to leasing subject to standard stipulations. IHMA areas outside of KPLAs are open to prospecting and subsequent leasing provided the Anthropogenic Disturbance Development Criteria (MD SSS 30) and the anthropogenic disturbance cap (MD SSS 27) can be met. RDFs and buffers shall be applied to prospecting permits. GHMA: Lands outside KPLAs are available for prospecting and subsequent leasing and initial mine development subject to RDFs, buffers, and standard stipulations.	Completely Revised
MD MR 16: Require seasonal and daily timing restrictions (Appendix C) in undeveloped nonenergy mineral leases when exploration activities or initial mine development is proposed (e.g. exploration drilling, timber removal, shrub clearing, etc.) as COAs.	Completely Revised
MD MR 17: Include RDFs as COAs to mine plans in undeveloped non-energy mineral leases for exploration activities or initial mine development.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Coal (Montana)	
MD MR 18: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR 3461.5(o)(1).	Completely Revised
Mineral Split Estate	
MD MR 19: BLM Owns Mineral Estate – non-federal surface owner: Where the federal government owns the mineral estate in PHMA, IHMA, and GHMA, and the surface is in non-federal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised – Remove IHMA
MD MR 20: BLM owns surface – non-federal mineral estate owner: Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA, IHMA, and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised – Remove IHMA
Renewable Energy (Wind and Solar) (RE)	
MD RE 1: PHMA: Designate and manage PHMA as exclusion areas for utility scale (20 MW) wind and solar testing and development, nuclear and hydropower energy development. IHMA: Designate and manage IHMA as avoidance areas for wind and solar testing and development, nuclear and hydropower development. GHMA (Idaho): Designate and manage GHMA as open for wind and solar testing and development and nuclear and hydropower development subject to RDFs and buffers. GHMA (Montana): Designate and manage GHMA as avoidance for wind and solar testing and development and nuclear and hydropower development.	Completely Revised
Lands and Realty (LR)	
Objectives LR 1: Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.	No change (same as 2015)
Utility Corridors and Communication Sites	
MD LR 1: Existing designated corridors, including Section 368 Corridors, will remain Open in all habitat management areas (subject to the ongoing settlement agreement).	Completely Revised
Also see MD LR 10 and MD SSS 31	Completely Revised
Land Use Authorizations	
MD LR 2: PHMA: Designate and manage PHMA as ROW avoidance areas, consistent with MD SSS 29 and subject to RDFs and buffers (Appendices B and C). IHMA: Designate and manage IHMA as ROW avoidance areas, consistent with MD SSS 30 and subject to RDFs and buffers. GHMA (Idaho and Montana): Designate and manage GHMA as open with proposals subject to RDFs and buffers.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD LR 3: PHMA: Development of commercial service airports and facilities (as defined by FAA 2014 – publically owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service) will not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in MD LR 2.	Completely Revised
MD LR 4: PHMA: Development of new or expansion of existing landfills will not be allowed within PHMA. IHMA and GHMA are Avoidance and Open respectively for these types of ROW applications as described in MD LR 2.	Completely Revised
MD LR 5: Consistent with MD LR 3, MD LR 4, and MD RE 1, Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in PHMA will only be considered when consistent with the Anthropogenic Disturbance Screening Criteria (MD SSS 29); Rights-of-way for development of new or amended ROWs and land use authorizations (including permits and leases) in IHMA can be considered consistent with the IHMA Anthropogenic Disturbance Development Criteria (MD SSS 30). GHMA: New ROW and land use authorizations can be considered.	Completely Revised
MD LR 6: In PHMA, if a higher voltage transmission line is required adjacent to an existing line (i.e. the project is an incremental upgrade/capacity increase of existing development (i.e. power line capacity upgrade): • the existing transmission line must be removed and area rehabilitated within a specified amount of time after the new line is installed and energized; and • the new line must be constructed in the same alignment as the existing line unless an alternate route will benefit GRSG or GRSG habitat.	Completely Revised
MD LR 7: Process unauthorized use. If the unauthorized use is subsequently authorized, it will be authorized consistent with direction from this plan including RDFs and buffers. If the use is not subsequently authorized the site will be reclaimed by removing these unauthorized (trespass) features and rehabilitating the habitat.	No change (same as 2015)
MD LR 8: Land use authorizations that are temporary (less than 3 years) in nature and are not otherwise excluded or restricted will be subject to seasonal or timing restrictions (Appendix C) and mitigation requirements regarding habitat loss as needed.	Completely Revised
MD LR 9: New ROW applications for water facilities (ditches, canals, pipelines), or amendments to existing water facilities which include additional structures to improve fish passage or benefits to fisheries (new diversions, fish screens) will be allowed on a case-by-case basis subject to RDFs to reduce impacts on GRSG habitat and mitigation requirements regarding GRSG habitat loss as needed.	Completely Revised
MD LR 10: When a ROW grant expires and is not requested to be renewed, is relinquished, or terminated, the lease holder will be required to reclaim the site by removing overhead lines and other infrastructure and to eliminate avian predator nesting opportunities provided by anthropogenic development on public lands associated with the now void ROW grant (e.g., remove power line and communication facilities no longer in service).	No change (same as 2015)

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD LR 11: As opportunities and priorities indicate work with existing ROW holders to retrofit existing towers and structures consistent with RDFs described in Appendix C.	No change (same as 2015)
MD LR 12: PHMA (Idaho and Montana) and IHMA (Idaho), and GHMA (Montana only) are designated as avoidance areas for high voltage transmission line and large pipeline ROWs, except for Gateway West and Boardman to Hemingway Transmission Projects. All authorizations in these areas, other than the following identified projects, must comply with the conservation measures outlined in this proposed plan, including the RDFs and avoidance criteria presented in MD SSS 29 and MD SSS 30 of this document. The BLM is currently processing an application for Gateway West and Boardman to Hemingway Transmission Projects and the NEPA review for this project is well underway. Conservation measures for GRSG are being analyzed through the project's NEPA review process, which should achieve a net conservation benefit for the GRSG.	Completely Revised
MD LR 13: Consider the likelihood of development of not-yet-constructed surface disturbing activities – as defined in Table 2 of the Monitoring Framework (Appendix D) – under valid existing rights.	Partially Revised – Updated monitoring framework
Land Tenure	
MD LR 14: Lands classified as PHMA, IHMA, and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the GRSG. Land tenure adjustments will be subject to the following disposal, exchange, and acquisition criteria, which include retaining lands with GRSG habitat. Retention of areas with GRSG will reduce the likelihood of habitat conversion to agriculture, urbanization, or other uses that will remove sagebrush habitat and potentially impact sensitive plants. Criteria: Acquire habitat within PHMA and IHMA, when possible (i.e. willing landowner), and retain ownership of habitat within all Areas, except if disposal will allow for additional or more contiguous federal ownership patterns. Lands within PHMA, IHMA and GHMA will be retained unless disposal of those lands will increase the extent or provide for connectivity of PHMA, IHMA or GHMA. Evaluate potential land exchanges containing historically low-quality GRSG habitat that may be too costly to restore in exchange for lands of higher quality habitat, lands that connect seasonal GRSG habitats or lands providing for threatened and endangered species. These potential exchanges should lead to an increase in the extent or continuity of or provide for improved connectivity of PHMA. Higher priority will be given to exchanges for those in-tact areas of sagebrush that will contribute to the expansion of sagebrush areas within PHMA currently in public ownership. Lower priority will be given to other lands that will promote enhancement in the PHMA and IHMA (i.e., areas with fragmented or less in-tact sagebrush). Identify lands for acquisition that increase the extent of or provide for connectivity of PHMA.	Partially Revised – Update HMA types, i.e., Remove IHMA for clarity

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Withdrawals	
See MD SS 10 regarding Sagebrush Focal Areas (SFA).	Completely Revised
Recreation and Visitor Services (REC)	
REC-1: Manage existing recreation uses and sites to minimize adverse effects on GRSG or their habitat through incorporation of RDFs, buffers and seasonal restrictions.	No change (same as 2015)
REC-2: In PHMA and IHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development will have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised – Remove IHMA and clarify mitigation standard
Travel and Transportation (TTM)	
MD TTM 1: Limit off-highway vehicle travel within Idaho BLM Field Offices to existing roads, primitive roads, and trails in areas where travel management planning has not been completed or is in progress. This excludes areas previously designated as open through a land use plan decision or currently under review for designation as open, currently being analyzed in ongoing RMP revision efforts in the Four Rivers, Jarbidge and Upper Snake Field Offices.	Completely Revised
MD TTM 2: In PHMA, IHMA, and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use) and other applicable law and policy.	Partially Revised – Remove IHMA
MD TTM 3: Develop Travel Management Plans for each Field Office as described in the BLM Travel Management Handbook 8342.1 and according to the travel management planning guidelines (Appendix L of FEIS).	Partially Revised – Remove App Ref
MD TTM 4: During subsequent travel management planning design and designate a travel system to minimize adverse effects on GRSG. Locate areas and trails to minimize disturbance of GRSG and/or to have a neural or positive effect on GRSG habitat and populations. Give special attention to protect endangered or threatened species and their habitats. Allow for route upgrade, closure of existing routes, timing restrictions, seasonal closures, and creation of new routes to help protect habitat and meet user group needs, thereby reducing the potential for pioneering unauthorized routes. The emphasis of the comprehensive travel and transportation planning within PHMA will be placed on having a neutral or positive effect on GRSG habitat. Individual route designations will occur during subsequent travel management planning efforts.	No change (same as 2015)
MD TTM 5: Conduct road construction, upgrades, and maintenance activities to avoid disturbance during the lekking season – see Appendix C.	Partially Revised
Mitigation (Montana)	
(Also see Appendix F and J)	Completely Revised
Montana 1: BLM will establish an inter-agency State GRSG Conservation Team at the state level (both Idaho and Montana) to help guide conservation of GRSG through compensatory mitigation, within 90 days of the issuance of the Record of Decision.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
Montana 2: The BLM, in coordination with the GRSG Conservation Team will develop a Mitigation Strategy within one year of the issuance of the Record of Decision. In Idaho this strategy will be consistent with the Idaho Mitigation Framework (Appendix F).	Completely Revised
Montana 3: In all GRSG habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation (Appendix E, Table E-1), the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.	Completely Revised
Montana 4: Mitigate anthropogenic development (Appendix E, Table E-1) impacts on GRSG habitat through application of appropriate mitigation in accordance with the Mitigation Framework (Appendix F and L).	Completely Revised
Montana 5: Consistent with regulations for minerals activities, require a full reclamation bond specific to the site when surface disturbing activities are proposed. Ensure reclamation bonds are sufficient to cover costs to fully rehabilitate lost GRSG habitat. Base the reclamation costs on the assumption that contractors for the BLM will perform the work. Areas are considered fully rehabilitated when they meet the conditions described in Table 2-2.	Partially Revised – Table 2.2 removed, replaced with Appendix 4 habitat objectives.
Coordination (CC)	
MD CC 1: Collaborate, coordinate and utilize cooperative planning efforts to implement and monitor activities to achieve desired conditions and to maximize the utilization of available funding opportunities. Coordination efforts can include: adjacent landowners, federal and state agencies, local governments, tribes, communities, other agencies, resource advisory groups, public lands permit holders and non- governmental organizations.	Completely Revised
MD CC 2: Develop a cooperative MOU between the BLM, Forest Service and State of Idaho to establish the State of Idaho as a cooperating agency during implementation of the final decision. The MOU will identify responsibilities, role and interaction of the BLM, Forest Service and State of Idaho. Montana BLM will participate as appropriate on Montana's Sage-grouse Oversight Team to facilitate coordination and implementation of BLM's final decision and Montana's Executive Order No. 10-2014.	Completely Revised
MD CC 3: The BLM will consider any recommendations from the Governor of Idaho as a result of evaluation completed by the Sage-Grouse Implementation Task Force.	Completely Revised
MD CC 4: Idaho: The BLM will coordinate with the State of Idaho and the Idaho Sage-Grouse Implementation Task Force regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management, anthropogenic disturbance and livestock grazing.	Completely Revised
MD CC 5: Montana: The BLM will coordinate with the State of Montana and the Montana Sage-grouse Oversight Team regarding proposed management changes, the implementation of conservation measures, mitigation, and site-specific monitoring, related to adaptive management and anthropogenic disturbance.	Completely Revised

GRSG Management from 2015 Dillon RMP Amendment	2025 BLM GRSG Approved RMP Amendment
MD CC 6: Upon completion of the Record of Decision the BLM will develop an initial Implementation Guide for BLM District and Field Offices within a year of issuance of the Record of Decision. This Guide will define and describe consistent application of the allocations, management actions, required design features, and etc. that are contained within the final plan and will be updated and expanded as needed to respond to issues and concerns.	Completely Revised
MD CC 7: At the state level, BLM will coordinate with IDFG, MFWP, USFWS, and other conservation partners in collaborative efforts with adjacent states (Oregon, Nevada, Utah, Montana, Wyoming) in GRSG MZs IV and II to evaluate GRSG habitat and population status and trends and make appropriate regional recommendations for GRSG conservation at broader scales.	Completely Revised
MD CC 8: At the state level, BLM will coordinate with the appropriate WAFWA Sage-grouse Technical Committee to develop consistent population and habitat monitoring approaches that facilitate GRSG conservation at the MZ scale.	Completely Revised
MD CC 9: All prescribed burning will be coordinated with state and local air quality agencies to ensure that local air quality is not significantly impacted by BLM activities.	Completely Revised
RDFs Defined	
RDFs are means, measures, or practices intended to reduce or avoid adverse environmental impacts. This LUPA/EIS proposes a suite of design features that will establish the minimum specifications for water developments, certain mineral development, and fire and fuels management and will mitigate adverse impacts. These design features will be required to provide a greater level of regulatory certainty than through implementing BMPs. In general, the design features are accepted practices that are known to be effective when implemented properly at the project level. However, their applicability and overall effectiveness cannot be fully assessed except at the project-specific level when the project location and design are known. Because of site-specific circumstances, some features may not apply to some projects (e.g., when a resource is not present on a given site) or may require slight variations from what is described in the LUPA/EIS (e.g., a larger or smaller protective area). All variations in design features will require appropriate analysis and disclosure as part of future project authorizations. Additional mitigation measures may be identified and required during individual project development and environmental review. The proposed RDFs are presented in Appendix C.	Completely Revised

2.3.1 Relevant Appendices

The following table shows which appendices from the 2015 plan have management direction that may change through the Approved RMPA. The appendices can be found on the Idaho and Southwestern Montana GRSG ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Approved RMP Amendment Maps	Completely Revised – See new maps in Appendix 1
B: Buffers	Completely Revised
C: Required Design Features	Partially updated
D: Monitoring Framework	Completely Revised
E: Anthropogenic Disturbance and Adaptive Management	Removed, see new management direction
F: Greater Sage-Grouse - Mitigation	Removed, see new management direction
G: Fluid Mineral Lease Stipulations, Waivers, Modifications, and Exceptions	Completely revised, see language for GRSG stipulations (see Appendix 6)
H: Fire and Invasives Assessment Tool (FIAT)	Removed
J: Montana Action Screen and Mitigation Process	Removed

2.4 HiLine RMP

This appendix presents the approved RMP revision language from the record of decision for the 2015 HiLine RMP that relate to GRSG management. The HiLine RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable RMP appendices that are listed in **Section 2.4.1** of this appendix.

Table 4: GRSG RMP Management Direction in HiLine RMP

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Fire Management and Ecology	
The BLM will protect sensitive status species habitat (such as sage-grouse) during suppression and prescribed fire activities as described in this document and consistent with BLM Policy. Fire management-related activities, including prescribed fire, should preserve or enhance the habitat quality for sage-grouse and other sensitive status species, especially in priority habitat areas. Where applicable, the BLM will use BMPs (Appendix H) to design fuels treatment objectives to protect existing sagebrush ecosystems, modify fire behavior, restore native plants, and create landscape patterns which benefit sage-grouse habitat (Appendix I). The use of heavy equipment during wildfire suppression and rehabilitation is allowable in sage-grouse habitat although cross-country travel should be limited through these areas. Wildfire suppression facilities shall be located to the extent possible in areas that minimize disturbance to high quality sage-grouse habitat.	No change (same as 2015)
If prescribed fire is used in Greater Sage-Grouse habitat, the NEPA analysis for the Burn Plan will address: • why alternative techniques were not selected as viable options; • how Greater Sage-Grouse goals and objectives would be met by its use; • how the COT Report objectives would be addressed and met; • a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that would protect Greater Sage-Grouse habitat in PHMA (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat would need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.	No change (same as 2015)

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Fluid Minerals (oil, gas and geothermal)	
Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of Greater Sage-Grouse, priority will be given to development in non-habitat areas first and then in the least suitable habitat for Greater Sage-Grouse. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 U.S.C. 226(p) and 43 C.F.R. 3162.3-1(h).	Completely Revised
Where a proposed fluid mineral development project on an existing lease could adversely affect Greater Sage-Grouse populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, minimize and apply compensatory mitigation to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an application for permit to drill (APD) for the lease to avoid and minimize impacts on sage- grouse or its habitat and will ensure that the best information about the Greater Sage- Grouse and its habitat informs and helps to guide development of such federal leases.	Completely Revised
Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval (COA), and/or conservation measures and RDFs (Appendix C) applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised - revised direction to clarify HMA language.
Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised - revised direction to clarify HMA language.

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
No waivers or modifications to a fluid mineral lease NSO stipulation will be granted in PHMA. The authorized officer may grant an exception to a fluid mineral lease NSO stipulation only where the proposed action: • would not have direct, indirect, or cumulative effects on Greater Sage-Grouse or its habitat; or • is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to Greater Sage-Grouse. Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid federal fluid mineral lease existing as of the date of this RMP revision. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. Any exceptions to this lease stipulation may be approved by the authorized officer only with the concurrence of the State Director. The authorized officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other Greater Sage-Grouse expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.	Completely Revised
The SFA are open to leasing with NSO with no waivers, exceptions, or modifications (WEMs).	Completely Revised
Lands and Realty	
Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.	No change (same as 2015)
Land Tenure	
Lands classified as priority habitat and general habitat (or habitat classification appropriate for the sub-region) for Greater Sage-Grouse will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the Greater Sage-Grouse; or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the Greater Sage-Grouse.	No change (same as 2015)
Solar and Wind	
PHMA will be exclusion areas for solar and wind energy rights-of-way. GHMA will be avoidance areas for solar and wind energy rights-of-way.	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Livestock Grazing	
If monitoring data demonstrate that livestock use on an allotment in a priority Greater Sage- Grouse area is adversely affecting Greater Sage-Grouse or their habitat, the terms and conditions of grazing permits may be modified, or changes in active use could be considered in order to meet the standards for rangeland health as described in 43 CFR, Part 4180 and the Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Appendix L) or to otherwise manage, maintain, or improve sage-grouse habitat.	Completely Revised
Appropriate indicators and measurements specific to habitat for Greater Sage-Grouse, or any other wildlife species of concern, will be evaluated as part of standards and guidelines assessment and any necessary and appropriate habitat objectives specific to meeting the wildlife health standard for the site will be identified and incorporated into allotment management plans (AMPs) or the terms and conditions of livestock grazing permits	Completely Revised
Processing Grazing Permits/Leases: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in SFA followed by PHMA outside of the SFA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations.	Completely Revised
The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within SFA and PHMA will include specific management thresholds based on the Greater Sage-Grouse habitat objectives Table 2.2, Desired Conditions for Greater Sage-Grouse Habitat, Land Health Standards (43 CFR, Part 4180.2) and ecological site potential, and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
Allotments within SFA, followed by those within PHMA, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.	Completely Revised
At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.	Removed

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Off-Highway Vehicle Use and Travel and Transportation Management	
The BLM will pursue opportunities to conduct restoration of roads, primitive roads and trails not designated during travel management planning, with priority given to areas with special management concerns. This includes primitive routes that have not been designated as "primitive routes" within wilderness study areas (WSAs) and those that have been closed within areas that are being managed to protect or enhance wilderness characteristics or special status species such as the Greater Sage-Grouse. Restoration activities will be done in accordance with guidelines described in Appendix M, Reclamation. Applicable requirements such as specific seed mixes or transplanting recommendations will also be applied where special status species or issues are a concern (e.g., mitigation for Greater Sage-Grouse).	No change (same as 2015)
In PHMA and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).	No change (same as 2015)
Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that off- highway vehicles (OHV) are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence (43 CFR, Part 8341.2). A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)
Recreation and Visitor Services	
In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development would have a net conservation gain to Greater Sage- Grouse habitat (such as concentrating recreation, diverting use away from sensitive areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - revised direction, see mitigation and SSS sections.
Salable (Mineral Materials)	
PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met: • the activity is within the BSU and project area disturbance cap; • the activity is subject to the provisions set forth in the mitigation framework (Appendix F); and • all applicable RDFs are applied and the activity is permissible under the specific subregional screening criteria (Appendix C).	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Solid Minerals – Leasable	
At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining Greater Sage-Grouse for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	Completely Revised
Solid Minerals – Locatable	
Within the limits of the Mining Laws, the BLM will apply COAs (Appendix I) to Plans of Operations to prevent undue and unnecessary degradation to Greater Sage-Grouse habitat.	No change (same as 2015)
A recommended withdrawal for 927,074 acres from locatable mineral entry to protect the SFA.	Completely Revised
Vegetation – Rangeland	
In all SFA and PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (such as big sagebrush) (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
The BLM will consult with MFWP and seek concurrence regarding the anticipated benefits and/or impacts of any vegetation treatments that may impact wildlife habitat including priority sage-grouse habitat.	No change (same as 2015)
Quantifiable vegetation objectives for sage-grouse habitat are presented in Table 2.3-2. The actions needed to meet or progress toward meeting these objectives will be incorporated into the respective AMPs or livestock grazing permits as appropriate.	Completely Revised – refer to Appendix 4
Water developments will be installed and/or maintained to facilitate control of livestock use of vegetation, support other uses, and protect resource values. In order to minimize surface disturbance, have reliable water of better quality and not alter normal surface flow of water, alternative water developments will be emphasized before constructing new pits and reservoirs. The BLM will manage water developments within Greater Sage-Grouse habitat to reduce the spread of West Nile virus (Appendix I).	Partially Revised - revised direction to clarify
The BLM will use land treatments to achieve and maintain fire regimes, and watershed, grazing management, and wildlife objectives. Within the Greater Sage-Grouse PHMA and the Grassland Bird/Greater Sage-Grouse PHMA, treatments that conserve, enhance or restore Greater Sage-Grouse habitat will be allowed as well as treatments that benefit other resources and do not adversely affect sage-grouse or their habitat.	No change (same as 2015)
Rangeland health monitoring and assessments will be conducted within current staffing capabilities. The allotments within the Greater Sage-Grouse PHMA and the Grassland Bird/Greater Sage-Grouse PHMA will be high priority for reassessment of land health standards and processing grazing permits as detailed in Appendix I. Rangeland health monitoring plans will be developed and implemented at the field office level.	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Conifers encroaching into sagebrush habitats will be removed, in a manner that considers tribal cultural values. Treatments will be prioritized closest to occupied sage-grouse habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site- specific analysis and principles like those included in the Fire and Invasives Assessment Tool (FIAT) report (Chambers, et al. 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.	Completely Revised
Vegetation – Riparian and Wetland	
The BLM will enhance or restore riparian composition and structure beyond proper functioning condition (PFC) in riparian areas where and when appropriate for other resource values.	No change (same as 2015)
Riparian areas with unique values (e.g., where water quality habitat for special status species is an issue) will be treated as avoidance areas for rights-of-way (installation of infrastructure that requires surface disturbance and/or permanent surface occupancy).	No change (same as 2015)
Grazing techniques and practices detailed in Appendix I will be implemented to reduce hot season (summer) grazing on riparian and meadow complexes within the PHMA. Alternative water facilities will be installed to relieve grazing impacts on riparian areas inside of priority sage-grouse habitat.	Partially Revised - revised direction to clarify
Wildlife	
Identify, conserve, enhance and monitor rare, vulnerable, and representative habitats, communities, and ecosystems to ensure self-sustaining persistence of special status species.	No change (same as 2015)
Ensure that proposed land uses initiated or authorized by the BLM minimize damage to wildlife habitat and populations of special status species.	No change (same as 2015)
Maintain and/or increase Greater Sage-Grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners.	Completely Revised
Manage priority wildlife habitat, special status species habitat, and populations using multi- scale assessments to identify current conditions, risks, and opportunities.	No change (same as 2015)
Maintain, enhance, or restore habitat availability and condition for special status species, and minimize habitat loss.	No change (same as 2015)
Protect priority Greater Sage-Grouse habitats from anthropogenic disturbances that would reduce distribution or abundance of sage-grouse.	No change (same as 2015)
Minimize fragmentation of large intact blocks of important wildlife habitat, particularly habitat areas for Greater Sage-Grouse and grassland birds. The BLM will initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the Endangered Species Act (ESA).	No change (same as 2015)
The BLM will ensure habitat is provided for special status species (BLM 2015, Tables 3.58 and 3.59). Proposed actions will not jeopardize the continued existence of a threatened or endangered species, or cause its habitat to be adversely modified or destroyed.	No change (same as 2015)
The BLM will continue cooperative participation in recovery plans, management plans and conservation strategies for special status species.	No change (same as 2015)
Fragmentation of large intact blocks of important wildlife habitat will be minimized, particularly in PHMA for Greater Sage-Grouse and grassland birds.	No change (same as 2015)

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Consider the likelihood of development of not-yet-constructed surface-disturbing activities−as defined in Table 2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.	Partially Revised – updated Appendix Reference as needed
No similar action.	New predation actions added
No similar action.	New sensitive status species actions added
Greater Sage-Grouse Priority Habitat Management Areas	
The area will include a NSO stipulation, without modifications or waivers, for oil and gas leasing unless there is a more restrictive stipulation in place to protect other resource values (e.g., no lease in the Mountain Plover ACEC).	Completely Revised
Exploration and development activities for existing oil and gas leases will be managed according to BMPs (Appendix N), or other mitigation measures, through COA in authorizing APDs or plans of development. Consistent with surface use rights granted, the existing lease may be subject to "restrictions deriving from specific, nondiscretionary statutes; and such reasonable measures as may be required by the authorized officer to minimize adverse impacts on other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed" (43 CFR, Part 3101.1-2). Overall consideration shall be given to minimizing the impact on sage-grouse through a project design that avoids, minimizes, and applies compensatory mitigation for direct and indirect impacts on sage-grouse habitat or use and includes applicable and technically feasible COA (Appendix I). Selection and application of these measures shall be based on current science and research on the impacts on important breeding, nesting, brood-rearing, and wintering areas.	Completely Revised
The area will be an avoidance area for the issuance of rights-of-way except within designated corridors. Rights-of-way and similar facilities will be located adjacent to other facilities in a corridor where practical. The BLM will consider opportunities to remove, bury, or modify existing power lines (e.g., burying, anti-perching devices or line location).	Completely Revised
Where leases or rights-of-way have some level of development (e.g., road, fence, well, etc.) that are no longer in use, the site will be reclaimed by removing the features and restoring the habitat. Upon project completion or right-of-way (ROW) expiration, roads built and maintained for commercial use across BLM land will be reclaimed, unless based on site-specific analysis, the route provides specific benefits to the public and the continued public use does not contribute to resource conflicts.	No change (same as 2015)
The area will remain available for livestock grazing. Site-specific Greater Sage-Grouse habitat and management objectives will be developed for BLM land and incorporated into the respective AMPs or livestock grazing permits as appropriate. Third order (fine-scale) and fourth order (site-scale) habitat indicators and characteristics for sage-grouse habitat seasonal use areas as described in the Sage-Grouse Habitat Assessment Framework (Stiver, et al. 2015) will be used to quantify habitat objectives.	Completely Revised
Existing range improvements, including the location of supplements, will be evaluated and if necessary modified to conserve, enhance or restore sage-grouse habitat.	Completely Revised
If prescribed fire is to be used for vegetation treatments, the burn plan will clearly indicate how COT objectives will be addressed and met by its use, and why alternative techniques were not selected. A Fire Risk Assessment will be completed for implementation of prescribed fire in relation to sage-grouse goals and objectives.	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
The area will be an exclusion area for solar and wind energy rights-of-way.	Completely Revised
The area will be closed to solid leasable minerals, including non-energy leasable minerals.	Completely Revised
PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met: • the activity is within the BSU and project area disturbance cap; • the activity is subject to the provisions set forth in the mitigation framework (Appendix I); and • all applicable RDFs are applied (Appendix C).	Completely Revised
New road construction will be limited to realignments of existing roads, if that realignment has a minimal impact on Greater Sage-Grouse habitat, eliminates the need to construct a new road, or is necessary for public safety. New road construction will include appropriate BMPs and mitigation (Appendices H and I).	Partially Revised - revised direction to clarify (new mitigation guidance)
Existing roads, or realignments, will be used to access valid existing rights. If valid existing rights cannot be accessed via existing roads, then any new road would be constructed to the absolute minimum standard necessary with appropriate BMPs and mitigation (Appendices H and I).	Partially Revised - revised direction to clarify
Greater Sage-Grouse General Habitat Management Areas	
Sagebrush habitats will be managed so that mid-scale (i.e. landscape level) shrub cover should include a mix of height classes with herbaceous understory adequate for meeting Greater Sage-Grouse requirements as well as habitat requirements for other sage- associated species such as mule deer and pronghorn.	No change (same as 2015)
Consideration will be given to incorporating fine-scale and site-specific Greater Sage-Grouse habitat and management objectives as appropriate to the area into AMPs or livestock grazing permits.	Completely Revised
GHMA will be an avoidance area for solar and wind energy rights-of-way.	Completely Revised
GHMA are open to minor ROWs and avoidance for major ROWs (high voltage transmission lines of 100 kilovolts or greater and pipelines 24 inches or greater in diameter).	Completely Revised
GHMA are open to fluid mineral leasing with moderate and standard constraints.	Completely Revised
Greater Sage-Grouse habitat suitability determinations will be based upon existing guidelines modified with data from recent habitat inventories and assessments in the planning area. Relevant range-wide research findings will also be included in habitat suitability determinations.	Completely Revised
The BLM will emphasize restoration and rehabilitation of sagebrush in areas that are capable of, but no longer support sagebrush to contribute to the distribution and connectivity of habitat patches.	No change (same as 2015)
Greater Sage-Grouse habitats associated with silver sagebrush north of the Milk River will be enhanced to improve habitat conditions for nesting and brood rearing. Specific management actions will be derived from the results of ongoing research and best available science.	No change (same as 2015)
New distribution power lines on BLM land within 1 mile of Greater Sage-Grouse leks will be buried.	No change (same as 2015)
Fragmentation of large intact blocks of habitat for special status species will be minimized, particularly in habitat protection areas for Greater Sage-Grouse and grassland birds.	No change (same as 2015)
Adaptive Management Strategy for Greater Sage-Grouse Management	
Follow the adaptive management strategy outlined in Appendix J.	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Mitigation	
Mitigation measures for all resources are included in Appendices H and I. The BLM may add additional mitigation measures as deemed necessary by further environmental analysis and as developed through consultation with other federal, state, and local regulatory and resource agencies.	Completely Revised
In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.	Completely Revised
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In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the U.S. Geological Survey (USGS) Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B.	Completely Revised
Development in Highly Important Landscapes	
The BLM will designate SFA as shown in Figure 2.3-1 (927,074 acres). All BLM-administered lands within the SFA boundary will be managed as PHMA with the following additional management:	Completely Revised
Recommended for withdrawal from the General Mining Act of 1872, subject to valid existing rights.	Completely Revised
Managed as NSO, without WEMs, for fluid mineral leasing.	Completely Revised
Prioritized for vegetation management and conservation actions in these areas, including, but not limited to land health assessments, review of livestock grazing permits/leases, and habitat restoration (see specific management sections).	Completely Revised
Disturbance	
[Plan Maintenance Action in 2018 conducted to acknowledge adoption of the State of Montana Habitat Conservation Program Density Disturbance Calculation Tool, changed Montana BLM Field Offices to a 5% cap. See DOI-BLM-MT-2018-0005-CX.] The Montana/Dakotas BLM will use a 3% disturbance cap at the BSU and project scale, until the State strategy, similar to Wyoming's Core Strategy of 5% for all lands and all disturbances, is fully implemented. The density calculation (an average of 1 facility per 640 acres) applies to energy and mining facilities. The disturbance cap will not be applied to foreclose development of locatable minerals on unpatented claims located under the General Mining Act of 1872; the disturbance from locatable mining will be accounted for in determining the percent disturbance and whether the cap has been exceeded.	Completely Revised Density cap retained.

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of landownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the General Mining Act of 1872, valid existing rights, etc.) will be permitted by the BLM within a project analysis area until the disturbance has been reduced to less than the cap. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site-specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location. If the BLM determines that the State of Montana has adopted a Greater Sage-Grouse Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational density disturbance calculation tool, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within a project analysis area.	Completely Revised
Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of landownership) in the PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area.	Completely Revised

GRSG Management from 2015 HiLine RMP	2025 BLM GRSG Approved RMP Amendment
Greater Sage-Grouse	
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Deleted habitat objective language and replace with the text below.] The habitat objectives for GRSG (Table 2.3-2) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-6 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	Completely Revised – Table 2.3-2 removed, refer to Appendix 4 for Habitat Indicators

2.4.1 Relevant Appendices

The following table shows which appendices from the 2015 plan have management direction that may change through the Approved RMPA. The appendices can be found on the HiLine RMP ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Approved RMP Amendment Maps	Completely Revised – Update maps in Appendix 1
B: Applying Lek Buffer Distances when Approving Actions in Greater Sage-Grouse Habitat Management Areas	Completely Revised
C: Required Design Features for Greater Sage-Grouse Habitat	Partially updated
D: The Greater Sage-Grouse Monitoring Framework	Completely revised
E: Greater Sage-Grouse Disturbance Caps	Removed, see new management direction
F: Greater Sage-Grouse Mitigation	Removed, see new management direction
G: Oil and Gas Lease Stipulations and Exception, Modification, and Waiver Criteria	Partially revised – see Appendix 6
H: Best Management Practices	Partially revised – addition of livestock grazing best management practices
I: Mitigation Measures and Conservation Actions for Greater Sage-Grouse Habitat	Removed, see new management direction
J: Adaptive Management Strategy for Greater Sage-Grouse Habitat Management	Removed, see new management direction
L: Standards for Rangeland Health and Guidelines for Livestock Grazing Management	No change (same as 2015)
M: Reclamation	No change (same as 2015)
N: Oil and Gas Best Management Practices (General Conditions of Approval)	No change (same as 2015)
O: Fire and Emergency Stabilization and Rehabilitation	No change (same as 2015)
P: Recreation Sites and Management Areas	No change (same as 2015)

2.5 LEWISTOWN RMP

This appendix presents the approved RMP language from the record of decision for the 2015 Lewistown RMP amendment and the 2021 Lewistown RMP revision (which brought forward much of the 2015 language) that related to GRSG management. The Lewistown RMP was not part of a 2019 GRSG amendment. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2015 or 2021 RMP appendices that are listed in **Section 2.1.2** of this appendix.

Table 5: GRSG RMP Management Direction in Lewistown RMP

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
Special Status Species (SSS)	
Goal SSS-1: Goal SS-1. Maintain and/or increase GRSG abundance and distribution by conserving, enhancing, or restoring the sagebrush ecosystem upon which populations depend, in cooperation with other conservation partners.	Completely Revised
Objective SSS-1.1: Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG.	No change (same as 2015)
Objective SSS-1.2: Habitat Delineation: Delineate PHMA to encompass the 75% breeding bird density map: 233,219 BLM surface acres (19% of total PHMA acres). See Figure 2-1, Lewistown Habitat Management Areas (Appendix A, Approved RMP Amendment Maps).	Completely Revised
Objective SSS-1.3: Habitat Delineation: Delineate GHMA to encompass the remainder of the habitat presented in the 100% breeding bird density map: 112,341 BLM surface acres (11% of total GHMA acres). See Figure 2-1, (Appendix A).	Completely Revised
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language Objective SSS-1.4. This objective is deleted and replace with the text below.] The habitat objectives for GRSG (Table 2-2) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-2 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in	Completely Revised - Table 2-2 removed, indicators now in Appendix 4.

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	*(see above)*
Action SSS-1.1: In undertaking BLM management actions in PHMA and GHMA, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the US Geological Survey Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B, Applying Lek Buffer Distances When Approving Actions.	Completely Revised

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
[Plan Maintenance Action in 2018 conducted to acknowledge adoption of the State of Montana Habitat Conservation Program Density Disturbance Calculation Tool, changed Montana BLM Field Offices to a 5% cap. See DOI-BLM-MT-2018-0005-CX.] Action SSS-1.2: Disturbance: If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA in any given BSU (see Figure 2-2, Lewistown GRSG Biologically Significant Units and Priority Habitat Management Areas [PHMA] [Appendix A]), then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG PHMA in any given BSU until the disturbance has been reduced to less than the cap. (BSU for this RMPA is the summary of all the PHMA within a GRSG population as delineated in the COT report.) If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership), or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, as amended, valid existing rights, etc.) will be permitted by BLM within a project analysis area until the disturbance has been reduced to less than the cap. Action SSS-1.4: Disturbance: Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG. See Appendix E, Greater Sage-Grouse Disturbance Caps. If the BLM determines that the State of Montana has adopted a GRSG Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational density and (DDCT, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within a project analysis area.	Completely Revised
Action SSS-1.3: Development Density: Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of land ownership) in the PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area.	No change (same as 2015)
Action SSS-1.5: Designate SFA as shown on Figure 2-1 (Appendix A) (53,440 acres). SFA will be managed as PHMA, with the following additional management: Recommended for withdrawal from the General Mining Act of 1872 (as amended), subject to valid existing rights. Prioritized for vegetation management and conservation actions in these areas, including, but not limited to land health assessments, wild horse and burro management actions, review of livestock grazing permits/leases, and habitat restoration (see specific management sections).	Completely Revised
Action SSS-1.6: Implement Adaptive Management Plan (Appendix I).	Completely Revised
Action SSS-1.7: Implement Regional Mitigation Strategy (Appendix F).	Completely Revised

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
No similar action.	New special status species, surface disturbing activity, predation, and non-habitat criteria actions added
Habitat Restoration/Vegetation Management (VEG)	
Objective VEG-1.1: In all SFA and PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
Objective VEG-1.2: Within the analysis area, vegetation treatments can continue to be used to meet or support resource management objectives, given special consideration for the protection and maintenance of sagebrush ecosystems is incorporated into the design and implementation of treatments. The BLM will continue to cooperate with the Montana Fish, Wildlife, and Parks (MFWP) to determine wildlife habitat needs.	No change (same as 2015)
Action VEG-1.1: In PHMA, prioritize implementation of restoration projects based on environmental variables that improve chances for project success in areas most likely to benefit GRSG.	No change (same as 2015)
Action VEG-1.2: In PHMA and GHMA, prioritize restoration in seasonal habitats that are thought to be limiting GRSG distribution or abundance.	No change (same as 2015)
Action VEG-1.3: In PHMA and GHMA, consideration for other threatened, endangered, or sensitive species will be evaluated in addition to GRSG when prioritizing restoration projects.	No change (same as 2015)
Action VEG-1.4: Manage for suitable GRSG habitat within PHMA.	No change (same as 2015)
Action VEG-1.5: In PHMA, require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Nonnative species will be considered when determined to be necessary for emergency stabilization and where required to facilitate natural succession of desired native vegetative communities.	No change (same as 2015)
Action VEG-1.6: In PHMA, design post-restoration management to ensure long-term persistence. This can include changes in current resource management to achieve and maintain the desired condition of the restoration that benefits GRSG. Modifications to livestock grazing will be made in accordance with BLM grazing regulation 43 CFR, Part 4130.3-3, and after consultation, cooperation, and coordination with owners or lessees having lands or managing resources within the affected allotment(s), affected cooperative state grazing districts and the interested public, if the grazing permit is being modified to make these adjustments. Temporary or long-term adjustments in post-restoration livestock use will be implemented by documented agreement or by the decision of the authorized officer in accordance with BLM grazing regulation 43 CFR, Part 4160.	Partially Revised - revised direction to clarify and be consistent with rangeland management section
Action VEG-1.7: In PHMA, consider potential changes in climate when proposing restoration seeding of native plants. Consider collection from the warmer component of the species' current range when selecting native seed.	No change (same as 2015)
Action VEG-1.8: Choose appropriate seed mix for the location.	No change (same as 2015)
Action VEG-1.9: In PHMA, restore native (or desirable) plants and create landscape patterns that most benefit GRSG. Consideration for other threatened, endangered, or sensitive species will be evaluated, in addition to GRSG, when creating landscape habitat patterns.	No change (same as 2015)

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
Action VEG-1.10: Make reestablishment of suitable GRSG habitat a high priority for restoration. Other restoration efforts within the field office may take precedence over sagebrush habitat projects, based on future threatened and endangered species listing decisions, funding sources and requirements, access to sites, landowner, and other agency cooperation, potential project success, as well as others. Decisions regarding restoration of habitats within the field office will remain at the discretion of the authorized officer.	No change (same as 2015)
Action VEG-1.11: In PHMA with higher fire frequency, where sagebrush seed is required for GRSG habitat restoration, consider establishing seed harvest areas that are managed for seed production that receive a priority for protection from outside disturbances.	No change (same as 2015)
Action VG-1.12: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the FIAT report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.	Partially Revised - revised direction to clarify and remove FIAT reference.
Fire and Fuels Management (FIRE)	
Fuels Management	
Objective FIRE-1.1: Design fuel treatments to protect, restore, enhance, or maintain GRSG habitat, consistent with vegetation and wildlife habitat objectives.	No change (same as 2015)
Action FIRE-1.1: If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plans will address: • why alternative techniques were not selected as a viable options; • how GRSG goals and objectives will be met by its use; • how the COT report objectives will be addressed and met; and • a risk assessment to address how potential threats to GRSG habitat will be minimized. Prescribed fire as vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire can be used to meet specific fuels objectives that will protect GRSG habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.	No change (same as 2015)
Action FIRE-1.2: Design fuels management projects in PHMA to strategically and effectively reduce wildfire threats in the greatest area. This may require fuels treatments implemented in a more linear versus block design.	No change (same as 2015)
Action FIRE-1.3: During fuels management project design, consider the utility of using livestock to strategically reduce fine fuels and implement grazing management that will accomplish this. Consult with an interdisciplinary team of resource specialists, as appropriate, to minimize impacts on native perennial grasses.	No change (same as 2015)

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
Action FIRE-1.4: Follow the most current RDFs for fire and fuels (Appendix C, Required Design Features).	No change (same as 2015)
Action FIRE-1.5: If prescribed fire is used, the burn plan will clearly indicate how COT objectives will be addressed and met, and why alternative techniques are not applicable. A fire risk assessment will be completed for implementation of prescribed fire used to meet the GRSG goals and objectives in PHMA (see Appendix H, GRSG Wildfire and Invasive Species Habitat Assessment).	Completely Revised
Fire Operations	
Objective FIRE-1.2: Manage wildfires to minimize loss of sage-brush and protect GRSG habitat.	No change (same as 2015)
Action FIRE-1.6: The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection. In PHMA, prioritize suppression, after life and property, to conserve the habitat. See Appendix H, which will be completed to help further refine fire management actions once this plan is completed.	Partially Revised
Action FIRE-1.7: In GHMA, prioritize suppression where wildfires threaten PHMA. Action FIRE-1.8: Follow the most current RDFs for fire and fuels (Appendix C). *Emergency Stabilization and Rehabilitation*	No change (same as 2015)
Action FIRE-1.9: In PHMA, prioritize native seed allocation for use in GRSG habitat in years when preferred native seed is in short supply. This may require reallocating native seed from emergency stabilization and rehabilitation (ES&R) projects outside of PHMA to those inside it. Use of native plant seeds for ES&R seedings is required, based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, nonnative seeds may be used, as long as they meet GRSG habitat conservation objectives. Reestablishing appropriate sagebrush species/subspecies and important understory plants, relative to site potential, should be the highest priority for rehabilitation.	No change (same as 2015)
Action FIRE-1.10: In PHMA, design post ES&R management to ensure long-term persistence of seeded or pre-burn native plants. This can include changes in current resource management to achieve and maintain the desired condition of the restoration effort that benefits GRSG. Modifications to livestock grazing will be made in accordance with BLM grazing regulation 43 CFR, Part 4130.3-3 and after consultation, cooperation and coordination with owners or lessees having lands or managing resources within the affected allotment(s), affected cooperative state grazing districts and the interested public, if the grazing permit is being modified to make these adjustments. Temporary or long-term adjustments in post-restoration livestock use will be implemented by documented agreement or by the decision of the authorized officer in accordance with BLM grazing regulation 43 CFR, Part 4160.	Partially Revised – revised direction to clarify and be consistent with rangeland management section
Action FIRE-1.11: In PHMA, consider potential changes in climate when proposing restoration seeding of native plants. Consider collection from the warmer component of the species' current range when selecting native seed.	No change (same as 2015)
Action FIRE-1.12: Develop an appropriate seed mix for the location, based on current climatic data as well as soils/ecological site descriptions.	No change (same as 2015)
Action FIRE-1.13: Appropriate pre and post treatment monitoring will be established to document impacts and success of the treatments.	No change (same as 2015)

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Action FIRE-1.14: Requirements for resting or deferring areas from livestock grazing following fire will depend on a variety of factors including resource objectives, the type of fuel, time and intensity of burn, accessibility of the burned area to livestock, and post-burn climatic factors. Compliance with land health standards (see Appendix F in the Lewistown Field Office Proposed RMPA/Final EIS).	No change (same as 2015)
Livestock Grazing (LG)	
Action LG-1.1: GRSG habitat objectives will be considered when evaluating an allotment's conformance with land health standards (see Appendix F in the Lewistown Field Office Proposed RMPA/Final EIS) prior to renewing a grazing authorization.	Completely Revised
Action LG-1.2: In PHMA and GHMA, conduct land health evaluations and determinations that include (at a minimum) indicators and/or measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. Management actions will be developed and implemented within one year if land health determinations indicate that an allotment is not meeting standards due to current livestock grazing. Appendix D addresses mid-scale monitoring.	Completely Revised
Action LG-1.3: Livestock grazing will be allowed on all areas not specifically closed to grazing (570,112 acres will be open to grazing and 103,806 animal unit months available). See Figure 2-3, Lewistown Livestock Grazing (Appendix A).	Completely Revised
Action LG-1.4: In PHMA, cooperate with ranchers and other agencies on integrated ranch planning so operations with intermingled land ownerships within BLM allotments can be planned as single units.	Completely Revised
Action LG-1.5: The BLM will prioritize (1) the review of grazing permits/leases in particular to determine if modification is necessary prior to renewal): and (2) the processing of grazing permits/leases in in SFA, followed by PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (e.g., fire) and legal obligations. The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will include specific management thresholds, based on GRSG Habitat Objectives (Table 2-2), Land Health Standards (43 CFR, Part 4180.2) and ecological site potential, and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis. Allotments within SFA, followed by those within PHMA, and focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks can include monitoring for actual use, utilization, and use supervision.	Completely Revised

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At the time a permittee or lessee voluntarily relinquishes a grazing permit or lease, the BLM will consider whether the public lands where that permitted use was authorized shall remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, 4110.2-3. Ecological site descriptions, riparian PFC protocols, water quality data, and various types of appropriate vegetative, riparian, habitat, and any other applicable data will continue to be used as the basis in allotment evaluations to determine conformance to Standards for Land Health and Guidelines for Livestock Grazing Management (see Appendix F, in the Lewistown Field Office Proposed RMPA/Final EIS).	*(see above)*
Action LG-1.6: Allotments that have the best opportunities for conserving, enhancing, or restoring habitat for GRSG will receive high priority for monitoring, evaluation, and management.	Completely Revised
Action LG-1.7: In PHMA, conduct land health evaluations and determinations that include (at a minimum) indicators and/or measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. Management actions will be developed if land health determinations indicate that an allotment is not meeting standards due to current livestock grazing. Appendix D addresses mid-scale monitoring.	Completely Revised
Action LG-1.8: The BLM will monitor grazing permits/leases renewed or modified in accordance with the direction contained in this guidance as follows: Allotments within SFA, followed by those in other PHMA, and focusing on those with riparian areas, will be prioritized for monitoring to ensure compliance with the terms and conditions in the permits. The BLM will collect, at a minimum, the following monitoring data: • Vegetation Condition • Actual Use • Utilization • Use Supervision	Completely Revised
Implementation Management Action After Land Health Evaluations	
Action LG-1.9: In PHMA and GHMA, conduct land health evaluations and determinations that include (at a minimum) indicators and/or measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. Management actions will be developed if land health determinations indicate that an allotment is not meeting standards due to livestock grazing in accordance with BLM grazing regulations 43 CFR, Part 4100. Appendix D addresses mid-scale monitoring.	Completely Revised
Action LG-1.10: Conserve, enhance, or restore PHMA based on ecological site descriptions (including wetlands and riparian areas). If an effective grazing system that meets GRSG habitat objectives is not already in place, analyze at least one allotment-specific alternative within the planning unit/permit renewal process that conserves, restores, or enhances PHMA.	Partially Revised - revised direction to clarify
Action LG-1.11: In PHMA, manage for vegetation composition and structure consistent with ecological site potential within the reference state to achieve GRSG seasonal habitat objectives. Natural ecological processes that impede localized site potential and that create a mosaic of habitat successional patterns will continue to occur.	Completely Revised

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Action LG-1.12: In PHMA, implement management actions within or outside of the watershed planning/permit renewal process to modify grazing management and to meet seasonal GRSG habitat objectives. Consider singly, or in combination, for changes in: Season or timing of use Numbers of livestock (includes temporary non-use or livestock removal) Distribution of livestock use Intensity of use Type of livestock	Completely Revised
Action LG-1.13: During drought periods, prioritize evaluating effects of the drought in PHMA, relative to their needs for food and cover. Drought management will continue to be in accordance with the Montana/Dakotas drought policy (see Appendix I, Drought Policy, in the Lewistown Field Office Proposed RMPA/Final EIS). Since there is a lag in vegetation recovery following drought, post-drought management will be implemented to allow for vegetation recovery that meets GRSG needs in PHMA. In accordance with BLM grazing regulation 43 CFR, Part 4130.3-3, consultation, cooperation, and coordination with owners or lessees having lands or managing resources within the area, the affected cooperative state grazing district, and interested public will be completed prior to adjusting post-drought livestock management if the grazing permit is being modified to make these adjustments. Implementation of adjustments will be initiated through documented agreement or by decision of the authorized officer in accordance with BLM grazing regulation 43 CFR, Part 4160.	Completely Revised
Riparian Areas and Wet Meadows	
Action LG-1.14: Riparian-wetland areas will be managed for PFC within the LFO. Within PHMA and GHMA, manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing. Also conserve or enhance these wet meadow complexes.	Completely Revised
Action LG-1.15: Riparian-wetland areas currently achieving PFC will be managed for desired future condition and the desired plant community, based on ecological site potential. Other values to be considered include important wildlife habitat, water quality impaired streams, fisheries, riparian woodland forest, and habitat for currently listed threatened, endangered, and sensitive species.	Partially Revised - revised direction to clarify
Action LG-1.16: Riparian-wetland areas with altered potential (i.e., those riparian-wetland areas that are incapable of reaching potential because of causes that are outside of the control of the BLM) will be managed for their capability.	Partially Revised - revised direction to clarify
Action LG-1.17: Human-made water developments, such as reservoirs and stock ponds, can develop riparian-wetland characteristics. Those that have the capability to support important wildlife values (such as GRSG habitats and fisheries) will be managed for such to the extent practical, with greater consideration given to the purpose of the development. When constructing or modifying water developments in PHMA, use RDFs (Appendix C) to reduce potential impacts from West Nile virus.	Partially Revised - revised direction to clarify

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Action LG-1.18: Within PHMA, reduce hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Use fencing/herding techniques or seasonal use or livestock distribution changes to reduce pressure on riparian or wet meadow vegetation used by GRSG in summer. Hot season use of riparian and wet meadow complexes may be authorized where consistent with overall GRSG habitat objectives and where use is currently resulting in vegetative conditions that are in conformance with land health standards.	Partially Revised - revised direction to clarify
Action LG-1.19: In PHMA, management emphasis will be placed on riparian and wetland potential associated with springs and seeps. Water from other sources will be prioritized to develop grazing management infrastructure. New water development for diversion from spring or seeps will be authorized only when no other sources are available and where such considerations will be neutral or beneficial to GRSG.	Partially Revised - revised direction to clarify
Action LG-1.20: Analyze springs, seeps, and associated pipelines during the land health evaluation and determination process to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within PHMA. Make modifications, where necessary, in accordance with Montana water law, considering impacts on other water uses, when such considerations are neutral or beneficial to GRSG.	Partially Revised - revised direction to clarify
Treatments to Increase Forage for Livestock/Wild Ungulates	
Objective LG-1.1: Develop and implement (as budgets and workloads allow) methods for prioritizing and restoring sagebrush steppe invaded by nonnative plants.	Completely Revised
Action LG-1.21: Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to PHMA to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of a grazing management plan that is providing value in conserving or enhancing native rangelands in PHMA and other priority wildlife habitats, then no restoration will be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health evaluation and determination process.	Completely Revised
Action LG-1.22: Integrated vegetation management will be used to control, suppress, and eradicate, where possible, noxious and invasive species, in accordance with Chapter 6, sections II and III of BLM Handbook H-1740-2. Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.	Completely Revised
Action LG-1.23: Noxious weed control on affected grazing allotments will be implemented through Weed Control Cooperative Range Improvement Project Agreements, which requires as a term and condition of a grazing authorization that the operator control noxious weeds on the grazing allotment(s) they are authorized to use.	Completely Revised
Structural Range Improvement and Livestock Management Tools	
Action LG-1.24: In PHMA, site and design new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore said habitat through an improved grazing management system relative to GRSG habitat objectives. Structural range improvements, in this context, include cattle guards, fences, exclosures, corrals, or other livestock handling structures; pipelines, troughs, storage tanks (including movable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels, and spring developments).	Completely Revised

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Action LG-1.25: Potential for invasive species establishment or increase following construction will be considered in the project planning process and monitored and treated post-construction. Projects will be designed to the extent practical to reduce or eliminate the establishment of new two-track roads and trails that may be created during construction and maintenance.	Completely Revised
Action LG-1.26: When developing or modifying water developments in PHMA and GHMA, use applicable RDFs (Appendix C) to reduce potential impacts from West Nile virus.	Completely Revised
Action LG-1.27: During the land health evaluation and determination and grazing authorization renewal process (typically every 10 years), examine existing structural range improvements and location of supplements (salt or protein blocks) to ensure they conserve, enhance or restore PHMA. Identify and mark fences in high and moderate risk areas, as identified by the use of "The Fence Collision Risk Tool" (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/) within PHMA, based on proximity to lek, lek size, and topography (Stevens 2011, Stevens et al. 2013). During the allotment evaluation and determination and grazing authorization renewal process, examine existing structural range improvements to ensure they conserve, enhance, or restore PHMA. In PHMA and GHMA, monitor for and treat invasive and noxious weed species associated with existing range improvement projects.	Completely Revised
Mineral Resources (MR)	
Leased Federal Fluid Mineral Estate	
Action MR-1.1: Allow geophysical exploration within PHMA to obtain exploratory information for areas outside of and adjacent to PHMA areas. Allow only geophysical operations by helicopter-portable drilling methods and in accordance with seasonal timing restrictions and other restrictions that may apply (see Appendix C).	Completely Revised
Action MR-1.2: During implementation level review and decisions, (e.g., approval of an application for permit to drill or Sundry Notice) and on completion of the environmental record of review (43 CFR, Part 3162.5), include appropriate documentation of compliance with NEPA. In this process evaluate, among other things: Whether the conservation measure is reasonable (43 CFR, Part 3101.1-2) with the valid existing rights; and Whether the action is in conformance with the ARMPA. The following operating constraints will be applied to existing leases as COAs in PHMA and GHMA. Exceptions may be granted by the authorized officer if an environmental review demonstrates that effects can be mitigated to an acceptable level, if habitat for the species is not present in the area, or if portions of the area can be occupied without affecting GRSG. Exceptions may also be granted where the short-term effects on GRSG within PHMA and GHMA are mitigated by the long-term benefits. Permanent (longer than two months) structures that create movement must be designed or sited to minimize impacts on GRSG. As reasonable (43 CFR, Part 3101.1-2), in consideration of valid existing rights, and to achieve a net conservation gain, the BLM will require compensatory mitigation when impacts cannot be adequately avoided and	Completely Revised

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minimized, and residual impacts will result in habitat loss and degradation. Compensatory mitigation actions will align with the recommendations in the Regional Mitigation Strategy (see Appendix F), as appropriate. A priority may be given to compensatory mitigation actions in the same PHMA as is being impacted, unless a greater benefit can be achieved elsewhere. Compensatory mitigation will be considered when no feasible options remain to adequately avoid and minimize impacts within and immediately adjacent to the impacted site. Make applicable RDFs (Appendix C) mandatory as COAs within PHMA and GHMA. RDFs provided in Appendix C will be site-specific restrictions applied to permits to drill as COAs after the completion of site- specific NEPA analysis. Standard stipulations (see Appendix G, Oil and Gas Lease Stipulations) apply to existing leases. See Figure 2-4, Lewistown Fluid Minerals (Oil and Gas) (Appendix A). Applied RDFs will have to be reasonable (43 CFR, Part 3101.1-2) with the valid existing rights and in conformance with the approved Judith and Headwaters RMPs.	*(see above)*
***Unleased Federal Fluid Mineral (Oil and Gas and Geothermal) Estate*: 2021 Revision**	
FW–AU-01: Apply NSO stipulations to greater sage-grouse PHMA.	Completely Revised
FW–AU-02: Apply NSO stipulations within 0.6 miles of a lek within GHMA.	Completely Revised
FW-AU-03: Apply CSU stipulations within 2 miles of a lek within GHMA.	Completely Revised
MD-1: No waivers or modifications to a fluid mineral lease NSO stipulation will be granted in PHMA. The authorized officer may grant an exception to a fluid mineral lease NSO stipulation only where the proposed action: (i) would not have direct, indirect, or cumulative effects on Greater Sage-Grouse or its habitat; or (ii) is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to Greater Sage-Grouse. *Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid federal fluid mineral lease existing as of the date of this RMP revision. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. *Any exceptions to this lease stipulation may be approved by the authorized officer only with the concurrence of the State Director. The authorized officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other Greater Sage-Grouse expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publicly available at least quarterly.	Completely Revised

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Solid Minerals	
Coal	
Action MR-1.3: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	Completely Revised
Locatable Minerals	
Action MR-1.4: Recommend SFA (53,440 acres) for withdrawal from the General Mining Act of 1872 (as amended), subject to valid existing rights. Analyze proposed action in Plan of Operations and apply mitigating measures needed to prevent unnecessary or undue degradation, as appropriate and in accordance with applicable law.	Completely Revised
Action MR-1.5: Locatable minerals exploration and development under the mining laws are not authorized under the discretion of the field manager but are reviewed (Notice and Plan of Operations) and approved (Plan of Operations) to prevent unnecessary or undue degradation. Proposed actions under Plan of Operations will be analyzed on a case-by-case basis in coordination with Montana Department of Environmental Quality, and RDFs apply to locatables to the extent consistent with applicable law (Appendix C).	No change (same as 2015)
Action MR-1.6: See Figure 2-5, Lewistown Locatable Minerals (Appendix A). At a minimum, annual compliance inspections will be conducted on each active Notice or Plan of Operations.	No change (same as 2015)
Nonenergy Leasable Minerals	
Action MR-1.7: Close PHMA to nonenergy leasable mineral leasing. This includes not permitting any new leases to expand an existing mine. See Figure 2-7, Lewistown Non-Energy Leasable Minerals (Appendix A).	Completely Revised
Action MR-1.8: For existing nonenergy leasable mineral leases in PHMA, apply all appropriate RDFs from Appendix C, whether traditional or solution mining is used to extract resources.	Completely Revised
Salable Minerals	
2021 Revision Changed Management: MM-AU-02: Federal mineral estate (including HMAs) open to mineral materials disposal. 2015 Action was: Action MR-1.9: PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met: • the activity is within the BSU and project area disturbance cap; • the activity is subject to the provisions set forth in the mitigation framework (Appendix F); and • all applicable RDFs are applied; and [if applicable] the activity is permissible under the specific subregional screening criteria.	Completely Revised

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In GHMA, the BLM will issue permits for salable minerals, where disposal is deemed to be in the public interest (Figure 2-6, Appendix A), while providing for reclamation of mined lands and preventing unnecessary or undue degradation, and meeting goals and objectives for PHMA, surface disturbance limits (applies only to PHMA), mitigation and other measures through the application of appropriate RDFs (Appendix C). Salable mineral permits are considered on a case-by-case basis and are issued at the discretion of the field manager. If activity under the permit application cannot be mitigated based on appropriate RDFs and strategies outlined in Appendix F to achieve net conservation gain and prevent unnecessary or undue degradation to GRSG habitat.	*(see above)*
Action MR-1.10: In PHMA, restore salable mineral pits no longer in use to meet GRSG habitat conservation objectives.	No change (same as 2015)
Mineral Split Estate	
Action MR-1.11: Where the federal government owns the surface and the mineral estate is in non- federal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee (Appendix C).	Partially Revised - revised direction to clarify HMA language
Action MR-1.12: Where the federal government owns the mineral estate in PHMA and GHMA, and the surface estate is in non-federal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs (Appendix C) applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised - revised direction to clarify HMA language
Lands and Realty (LR)	
Objective LR-1.1: Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.	No change (same as 2015)
Rights-of-Way	
Action LR-1.1: PHMA and GHMA will be managed as ROW avoidance areas for high voltage transmission lines (100 kilovolt [kV] and over) and large pipelines (24 inches in width and over) (345,560 acres) with limited exceptions, which must be based on an explicit rationale that biological impacts on GRSG are being avoided with the exception. See Figure 2-10a, Major Rights-of-Way (Appendix A).	Completely Revised
PHMA will also be managed as a minor ROW avoidance area (233,219 acres). See Figure 2-10b, Lewistown Minor Rights-of-Way (Appendix A).	Completely Revised
GMHA will be open to minor ROWs (112,341 acres). Where new ROWs are required, collocate new ROWs within existing ROWs or where it best minimizes impacts on GRSG and GRSG habitat. Appropriate RDFs identified within the terms of the authorization to minimize surface-disturbing and disruptive activities. See Appendix C for RDFs that may be applied based on site-specific project level NEPA analysis.	Completely Revised
Action LR-1.2: PHMA will be managed as a ROW exclusion area for wind and solar energy (233,219 acres) and GHMA will be managed as a ROW avoidance area for wind and solar energy (112,341 acres). See Figure 2-8, Lewistown Wind, and Figure 2-9, Lewistown Solar (Appendix A).	Completely Revised
Action LR-1.3: When addressing ROW authorizations in PHMA, identify and evaluate opportunities to remove, bury, or modify power lines within PHMA. Financial and technical feasibility will be evaluated during the environmental analysis process.	No change (same as 2015)

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Action LR-1.4: Current FLPMA ROWs have a stipulation that when the ROW terminates, the site must be remediated and restored by the grant holder to BLM's satisfaction (43 CFR, Part 2807.19).	No change (same as 2015)
Action LR-1.5: Many pre-FLPMA grant authorizations are for water, or electricity, to large areas and most of these grants are perpetual or non-expiring. If an amendment is needed the grant will be renewed/reauthorized under current authority with additional stipulations and/or mitigation requirements. If the pre-FLPMA authorizations are no longer needed, grantees will be required to reclaim sites by removing features/fixtures and restoring habitat. Grant authorizations under the Mineral Leasing Act will be renewed if they are still being used for their original purposes.	No change (same as 2015)
Action LR-1.6: Leases and permits (other than for cabin site leasing), which may be for occupancy, and film production, will be considered on a case-by-case basis; however, PHMA will be lease and permit avoidance areas. Leases and permits will be allowed in GHMA with appropriate stipulations and conservation measures identified within the terms of the authorization to minimize surface-disturbing and disruptive activities. Avoidance areas within GHMA may be identified.	No change (same as 2015
Action LR-1.7: The holder of a ROW shall be responsible for weed control on disturbed areas within the limits of the ROW. The holder shall be responsible for invasive weed control for the life of the ROW. ROW holder is responsible for weed control and monitoring for three years after reclamation has been completed. The holder will be responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods.	No change (same as 2015)
Action LR-1.8: No utility corridors designated within the planning area.	No change (same as 2015)
Action LR-1.9: Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table D.2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.	Partially Revised – updated Appendix Reference as needed
Land Tenure Adjustment	
Action LR-1.9: Lands classified as PHMA and GHMA will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the GRSG. See Figure 2-11, Lewistown Land Tenure (Appendix A).	No change (same as 2015)
Action LR-1.10: Land tenure adjustments in the Headwaters planning area will be subject to disposal/acquisition criteria identified (BLM 1984, page 20).	No change (same as 2015)
Action LR-1.11: Retain important wildlife habitat (one of the three main criteria for land tenure adjustments outlined in the Judith Resource Area RMP) (BLM 1994).	No change (same as 2015)
Action LR-1.12: Headwaters RMP land ownership adjustment criteria include nesting/breeding habitat for game animals (BLM 1984, page 20).	No change (same as 2015)
Action LR-1.13: When offered, PHMA will be a priority in consideration of land acquisitions (refer to Appendix H, Land Pattern Review and Land Adjustment, in Lewistown Field Office Proposed RMPA/Final EIS). Consider GRSG for all land tenure actions.	No change (same as 2015)

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Recommend Land Withdrawals	
Action LR-1.14: Withdrawals from minerals on BLM surface (2,686 acres).	No change (same as 2015)
Action LR-1.15: SFA (53,440 acres) will be recommended for withdrawal from the General Mining Act of 1872 (as amended), subject to valid existing rights.	Completely Revised
Recreation and Visitor Services (REC)	
Action REC-1.1: Special recreation permits in PHMA may be allowed if they are neutral or beneficial for GRSG habitat.	No change (same as 2015)
Action REC-1.2: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, and staging areas) unless the development will have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from important areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - see mitigation and SSS sections
Travel and Transportation (TRM)	
Action TTM-1.1: BLM-administered lands are designated limited to existing roads, primitive roads, and trails yearlong for off-highway vehicle use (OHVs; OHVs are restricted to existing roads, primitive roads, and trails). Implement a comprehensive travel and transportation management (CTTM) plan to designate roads and trails (when travel management plan is complete). Administrative off-road use for BLM personnel and BLM authorized activities will be allowed. BLM-implemented CTTM will not apply to private or other state or federal lands within the LFO.	No change (same as 2015)
Action TTM-1.2: On completion of site-specific projects, roads used for commercial or administrative access on BLM-administered lands will be reclaimed, unless the route will provide specific benefits for public access, will minimize impacts on the resources, and will be considered on a case-by-case basis.	No change (same as 2015)
Action TTM-1.3: The BLM will close or restore unauthorized, user created roads and trails to prevent resource damage, including impacts on GRSG.	No change (same as 2015)
Action TTM-1.4: During route designation and travel planning in PHMA, travel management will evaluate the need for permanent or seasonal route or area closures where vehicle use is causing or will cause considerable adverse effects on habitat.	No change (same as 2015)
Action TTM-1.5: Through site-specific planning, the BLM will designate roads, primitive roads, and trails for motorized use. Roads, primitive roads, and trails will be inventoried, mapped, and analyzed to the degree necessary to evaluate and designate the roads, primitive roads, and trails as open, seasonally open, or closed (BLM 2003). All CTTM planning shall be completed within 5 years of the signing of the ROD. The CTTM planning will be conducted using an interdisciplinary team approach to address all resource uses, including administrative, recreation, commercial, and associated modes of travel (motorized, mechanized, and nonmotorized types; BLM—Travel and Transportation Handbook [H- 8342]).	No change (same as 2015)
Action TTM-1.6: In PHMA, during site-specific travel and transportation management planning, limit route construction to realignment of existing routes if that realignment has a minimal impact on GRSG habitat, if it eliminates the need to construct a new road, or if it is necessary for motorist safety.	No change (same as 2015)
Action TTM-1.7: In PHMA, during site-specific travel and transportation management planning, use existing routes or realignments, as described above, to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing routes, then build any new route to the absolute minimum standard necessary.	No change (same as 2015)

GRSG Management from Lewistown RMP	2025 BLM GRSG Approved RMP Amendment
Action TTM-1.8: In PHMA, during site-specific travel and transportation management planning, the upgrading of existing routes that will change route category (road, primitive road, or trail) or capacity may be allowed when there are minimal impacts on GRSG and GRSG habitat, if it is necessary for motorist safety, or if it eliminates the need to construct a new road. All upgrades to existing routes will be evaluated on a case-by-case basis and will be subject to valid existing rights (e.g., existing ROWs or easements).	No change (same as 2015)
Action TTM-1.9: When travel plans are complete, restore roads, primitive roads and trails in PHMA that are not designated in travel management plans. This also includes primitive routes/roads that were not designated in wilderness study areas (WSA) that have been selected for protection in previous RMPs.	No change (same as 2015)
Action TTM-1.10: When reseeding roads, primitive roads, and trails in PHMA, use appropriate seed mixes and consider the use of transplanted sagebrush.	No change (same as 2015)
Action TTM-1.11: In PHMA and GHMA, temporary closures will be considered in accordance with 43 CFR, subpart 8364 (Closures and Restrictions); 43 CFR, subpart 8351 (Designated National Area); 43 CFR, subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR, subpart 8341 (Conditions of Use).	No change (same as 2015)
Temporary closure or restriction orders under these authorities are enacted at the discretion of the authorized officer to resolve management conflicts and protect persons, property, and public lands and resources. Where an authorized officer determines that OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence (43 CFR, Part 8341.2). A closure or restriction order shall be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders shall be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)

2.5.1 Relevant Appendices

The following table shows which appendices from the 2015 and 2021 plans have management direction that may change through the Approved RMPA. The 2015 Appendices can be found on the Lewistown GRSG ePlanning website. The 2021 Appendices can be found on the Lewistown RMP ePlanning website.

Appendix Name	Year	2025 BLM GRSG Approved RMP Amendment
A: Figures	2021	Completely Revised – see new maps in Appendix 1
B: Collaboration and Coordination	2021	No change (same as 2021)
D: Implementation and Monitoring	2021	No change (same as 2021)
F: Design Features and Best Management Practices	2021	Partially revised – revised to add livestock grazing BMPs
G: Reclamation	2021	No change (same as 2021)
H: Draft Air Resource Management Plan: Adaptive Management Strategy for Oil and Gas Resources	2021	No change (same as 2021)
I: Fire and Emergency Stabilization and Rehabilitation	2021	No change (same as 2021)
J: Impoundments	2021	No change (same as 2021)
K: North Continental Divide Ecosystem Grizzly Bear Conservation Strategy	2021	No change (same as 2021)
L: Stipulations and Allocations Applicable to Fluid Minerals Leasing	2021	Partially revised, GRSG stipulations changed, see Appendix 6
M: Summary of the Lewistown Field Office Wilderness Characteristics: 2014 Update	2021	No change (same as 2021)
N: BLM Standards for Rangeland Health and Guidelines for Livestock Grazing Management Grazing	2021	No change (same as 2021)
O: Allotments	2021	No change (same as 2021)
P: Drought Policy	2021	No change (same as 2021)
Q: Recreation Management Areas	2021	No change (same as 2021)
R: Land Ownership Adjustment Categories	2021	No change (same as 2021)
S: Withdrawal Segregations	2021	No change (same as 2021)
U: Land Management Allocations	2021	No change (same as 2021)
A - Approved RMP Amendment Maps	2015	Completely Revised – See new maps in Appendix 1
B - Applying Lek Buffer Distances When Approving Actions	2015	Completely Revised
C - Required Design Features	2015	Partially revised – added livestock grazing BMPs, See also 2021 appendix
D - The Greater Sage-Grouse Monitoring Framework	2015	Completely Revised
E - Greater Sage-Grouse Disturbance Caps	2015	Removed, see new management direction
F - Regional Mitigation Strategy	2015	Removed, see new management direction
G - Oil and Gas Stipulations	2015	N/A – See 2021
H - GRSG Wildfire and Invasive Species Habitat Assessment	2015	Removed
I - Adaptive Management Strategy for Greater Sage-Grouse Habitat Management	2015	Removed, see new management direction

2.6 MILES CITY RMP

This appendix presents the approved RMP revision language from the 2015 record of decision for the Miles City RMP that relate to GRSG management. The Miles City RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable RMP appendices that are listed in **Section 2.6.1** of this appendix.

Table 6: GRSG RMP Management Direction in Miles City RMP

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
Special Status Species: *GRSG Habitat*	
Goal 1: Provide for the conservation, enhancement, restoration, and connectivity of the Northern Great Plains mixed grass prairie and shrubland, capable of supporting sustainable populations of GRSG and other wildlife species.	Partially Revised – Clarified to a general sagebrush goal.
Objective 1: Maintain, improve and increase sagebrush habitats to sustain sagebrush obligates and other sagebrush dependent species.	No change (same as 2015)
Objective 2: Conserve GRSG habitat while promoting movement and genetic diversity	No change (same as 2015)
Objective 3: Priority will be given to leasing and development of fluid minerals outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 United States Code (U.S.C.) 226(p) and 43 CFR, Part 3162.3- 1(h).	Completely Revised
Objective 4: Where a proposed fluid mineral development on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other proponents to avoid, minimize and mitigate adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessees, operators, or other proponent in developing an application for permit to drill (APD) for the lease to avoid and minimize impacts on GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.	Completely Revised
MD 1: In all GRSG habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.	Completely Revised
MD 2: Will follow the adaptive management strategy outlined in Appendix H, GRSG Adaptive Management Strategy. The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD and then at a minimum, analyzed annually thereafter.	Completely Revised

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
No similar action.	New sensitive status species actions added
No similar action.	New predation actions added
Sage Grouse Habitat – General Habitat Management Areas	
Goal 1: Maintain or increase habitat needed for GRSG through the management of surface disturbing and disruptive activities, including the loss and distribution of sagebrush habitat.	No change (same as 2015)
Objective 1: Conserve GRSG habitat while promoting movement and genetic diversity.	No change (same as 2015)
MD 1: Major ROWs (100 kv and over for high voltage transmission lines and 24 inch in width and over for large pipelines) and renewable energy ROWs will avoid GRSG GHMA (1,395,000 acres).	Completely Revised
Minor ROWs will be allowed with design features to protect breeding, nesting and brood rearing in GRSG GHMA (1,365,000 acres).	Completely Revised
Other surface-disturbing and disruptive activities (including Mineral Material Sales) will be allowed with design features to protect breeding, nesting, and brood-rearing GRSG habitat (1,365,000 acres).	Completely Revised
Oil and gas leasing is open and surface occupancy and use is prohibited within 0.6 miles of the perimeter of leks (NSO) (61,000 acres).	Completely Revised
In addition, surface occupancy and use within 2 miles of leks is restricted or prohibited. Prior to such activities, a plan to mitigate impacts on nesting GRSG or their habitat will be prepared by the proponent and implemented upon approval, by the Authorized Officer (AO) (CSU) (652,000 acres).	Completely Revised
In undertaking BLM management actions and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the United States geological Survey (USGS) Report (see Appendix B, GRSG Conservation Buffer).	Completely Revised
Sage Grouse Habitat – Priority Habitat Management Areas	
Objective 1: Maintain or increase GRSG habitat over the long-term, recognizing valid existing rights.	No change (same as 2015)
Objective 2: Restore degraded GRSG habitat.	No change (same as 2015)
Objective 3: Manage permitted uses while providing GRSG habitat for the long-term.	No change (same as 2015)
MD 1: Where deemed effective, water developments will be managed to reduce the spread of West Nile virus (see Appendix C, GRSG Required Design Features).	Completely Revised
MD 2: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	Completely Revised
MD 3: PHMA is managed according to the following prescriptions:	Completely Revised
• Renewable Energy ROWs will be excluded within GRSG priority areas (817,000 acres).	Completely Revised
• PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met:	Completely Revised
• The activity is within the PHMA BSU and area disturbance cap.	Completely Revised
• The activity is subject to the provisions set forth in the mitigation framework (Appendix F, GRSG Regional Mitigation Strategy).	Completely Revised

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
• All applicable required design features are applied; and (if applicable) the activity is permissible under the specific subregional screening criteria.	Completely Revised
• Oil and gas leasing is open and surface occupancy and use is prohibited within sage grouse priority areas (NSO (1,329,000 acres).	Completely Revised
• No waivers or modifications to a fluid mineral lease no-surface occupancy stipulation will be granted. The AO may grant an exception to a fluid mineral lease no-surface occupancy stipulation only where the proposed action: • Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or, • Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG. • Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP revision. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. • Any exceptions to this lease stipulation may be approved by the AO only with the concurrence of the State Director. The AO may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfied (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.	Completely Revised
• Major (high voltage transmission lines and large pipelines) and minor ROWs will avoid GRSG priority areas (817,000 acres).	Completely Revised
• In undertaking BLM management actions, and consistent with valid and existing rights and law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS Report *Conservation Buffer Distance Estimates for Greater Sage-grouse – A Review (Open File Report 2014-1239)*, in accordance with Appendix B, GRSG Conservation Buffer.	Completely Revised

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
[Plan Maintenance Action in 2018 conducted to acknowledge adoption of the State of Montana Habitat Conservation Program Density Disturbance Calculation Tool, changed Montana BLM Field Offices to a 5% cap. See DOI-BLM-MT-2018-0005-CX.] • If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872, as amended, valid existing rights, etc.) will be permitted by BLM within GRSG PHMA in any given BSU until the disturbance has been reduced to less than the cap. • If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the Mining Law of 1872, valid existing rights, etc.) will be permitted by BLM within PHMA in a analysis area until the disturbance has been reduced to less than the cap. • If the BLM determines that the State of Montana has adopted a GRSG Habitat Conservation Program that contains comparable components to those found in the State of Wyoming's Core Area Strategy including an all lands approach for calculating anthropogenic disturbances, a clear methodology for measuring the density of operations, and a fully operational Density Disturbance Calculation Tool, the 3% disturbance cap will be converted to a 5% cap for all sources of habitat alteration within an analysis area.	Completely Revised
MD 4: Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table 2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.	Partially Revised – updated Appendix Reference as needed
GRSG Habitat – Restoration Areas	
Objective 1: Strive for proponents to develop area-wide Habitat Recovery Plans.	Completely Revised
Objective 2: Strive for no net loss of GRSG habitat.	Completely Revised
Objective 3: Strive for the restoration of previously disturbed landscapes in a manner which increases or improves the quality and quantity of GRSG habitat.	Completely Revised
MD 1: Surface-disturbing and disruptive activities will be allowed with required design features to minimize disturbance to GRSG habitat (87,000 acres). Oil and gas leasing is open and surface occupancy and use is subject to design features, to minimize disturbance to GRSG habitat in the Cedar Creek Area (CSU) (22,000 acres). In the West Decker (11,000 acres) and South Carter Area (164,000 acres) oil and gas leasing is open and surface occupancy and use is prohibited (NSO). Renewable Energy ROWs will be excluded within all Restoration Areas. Major ROWs will be avoided and minor ROWs will be allowed with design features.	Completely Revised

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
Vegetation	
Objective 5: In all PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
MD 2: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in the Fire and Invasive Species Team (FIAT) report (Chambers et. al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.	Partially Revised - revised direction for clarity
MD 4: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.	No change (same as 2015)
Wildland Fire Management and Ecology	
Fuels Management/Prescribed Fire	
MD 3: If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plan will address: • why alternative techniques were not selected as a viable options; • how GRSG goals and objectives will be met by its use; • how the COT Report objectives will be addressed and met; • a risk assessment to address how potential threats to GRSG habitat will be minimized. Prescribed fire as vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that will protect GRSG habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.	No change (same as 2015)
Wildfire Management	
MD 1: The BLM will prioritize fire management activities according to potential risks to life and property across the planning area. Wildfires adjacent to or near wildland urban or industrial interface will have the highest priority for fire suppression. In PHMA, prioritize suppression, after life and property, to conserve the habitat. In GHMA, prioritize suppression where wildfires threaten PHMA.	No change (same as 2015)

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
Livestock Grazing	
MD 3: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.	Completely Revised
MD 4: The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR, Part 4180.2) and ecological site potential and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
MD 5: Allotments within PHMA, focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.	Completely Revised
MD 6: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments (RCAs) or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.	Removed
Lands and Realty	
Land Tenure	
MD 5: Lands classified as PHMA and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the GRSG.	No change (same as 2015)
Minerals	
Fluid Minerals (oil and gas)	
Geothermal managed as a fluid mineral (e.g., same stipulations as oil and gas)	Partially Revised to clarify fluid minerals is O&G and geothermal
MD 8: Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in non-federal ownership, apply the same stipulations, conditions of approval (COAs), and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised - revised direction to clarify HMA language.
Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised - revised direction to clarify HMA language.

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
Coal	
MD 3: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	Completely Revised
Non-Energy Leasable	
No similar action.	New nonenergy leasable minerals actions added
Comprehensive Trails and Travel Management	
Objective 7: The BLM will strive to complete travel management planning using a developed strategy that sets time frames and prioritizes Travel Management Areas (TMAs). TMAs within the priority GRSG habitat area will strive to be prioritized and completed as funding and staffing allows.	No change (same as 2015)
Objective 8: The BLM will create a developed strategy based on information found in the BLM Handbook H-8342, Travel and Transportation. Areas receiving focus and a higher priority will be based on priority GRSG habitat areas, heavily used areas, social conflict concerns, resource concerns, consideration of primary travelers, valid existing rights, visitor recreation experiences, and development for administrative or public access.	No change (same as 2015)
MD 1: On BLM administered surface, including PHMA and GHMA, temporary closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR subpart 8341 (Conditions of Use).	No change (same as 2015)
Temporary closure or restriction orders under these authorities are enacted at the discretion of the AO to resolve management conflicts and protect persons, property, and public lands and resources. Where an AO determines that OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR, Part 8341.2) A closure or restriction order should be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders should be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)
Recreation and Visitor Services (SRMAs)	
MD 1: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development will have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - see mitigation and SSS sections.

GRSG Management from Miles City RMP	2025 BLM GRSG Approved RMP Amendment
GRSG Habitat Objectives	
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Habitat objective language was deleted and replaced with the text below.] The habitat objectives for GRSG (Table 2-6) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-6 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	Completely Revised – Table 2-6 removed, indicators now in Appendix 4.

2.6.1 Relevant Appendices

The following table shows which appendices from the 2015 plan have management direction that may change through the Approved RMPA. The 2015 Appendices can be found on the Miles City RMP ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Approved RMP Maps	Completely Revised – see Appendix 1 for new maps
B: GRSG Conservation Buffer	Completely revised
C: GRSG Required Design Features	Partially revised
D: GRSG Monitoring Framework	Completely revised
E: GRSG Disturbance Cap	Removed
F: GRSG Regional Mitigation Strategy	Removed
G: Minerals Stipulations	Partially revised – updated for GRSG stipulations (see Appendix 6)
H: Adaptive Management Strategy for GRSG Habitat Management	Removed
I: Air Resources and Climate	No change (same as 2015)
J: Fish, Aquatic and Wildlife Habitat Including Special Status Species	No change (same as 2015)
K: Livestock Grazing	No change (same as 2015)
L: Mitigation Measures and Conservation Actions	No change (same as 2015)
M: Monitoring	No change (same as 2015)
N: Reclamation	No change (same as 2015)
O: Recreation	No change (same as 2015)
P: Special Designation Areas	No change (same as 2015)

2.7 UPPER MISSOURI RIVER BREAKS NATIONAL MONUMENT RMP

This appendix presents the approved RMP language from the 2009 record of decision for the Upper Missouri River Breaks National Monument (UMRBNM) RMP that relate to GRSG management. The UMRBNM RMP was not part of either 2015 or 2019 GRSG amendment process. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable RMP appendices that are listed in **Section 2.7.1** of this appendix.

Table 7: GRSG RMP Management Direction in UMRBNM RMP

GRSG Management from UMRBNM RMP	2025 BLM GRSG Approved RMP Amendment
Management Decisions: Vegetation Communities	
The BLM will consider mechanical treatment as the primary method and prescribed fire as a secondary method to remove conifers encroaching on sage-grouse habitat, except where forested habitat is limited.	No change (same as 2009)
The BLM will promote sage planting, where appropriate, on project areas (such as sites where sagebrush has been removed for crested wheat grass conversions) occurring within sage-grouse habitats and will reclaim and/or reseed areas disturbed by treatments.	No change (same as 2009)
No similar action.	New vegetation actions added
Management Decisions: Terrestrial and Aquatic Wildlife Resources	
Sage-grouse management will utilize the 2005 Management Plan and Conservation Strategies for Sage-Grouse in Montana – Final for overall guidance and direction.	Completely Revised
No similar actions.	New predation, adaptive management, mitigation, disturbance, sensitive status species, and HMA management actions added
Management Decisions: Habitat Objectives	
The BLM will manage for a healthy diverse vegetative community with a variety of forbs, and maintain big sagebrush and silver sage on sage-grouse wintering and nesting areas with a canopy cover of 15-30% and an average height of 12 inches.	Completely Revised – refer to Appendix 4.
No similar action.	New habitat objective added
Management Decisions: Disturbance	
Greater Sage-Grouse – The BLM will not authorize new surface-disturbing or disruptive activities within 1/4 mile of active leks, nor will it allow new surface-disturbing or disruptive activities within nesting areas (a 2-mile radius of an active lek) from March 1 to June 15. The BLM will not authorize any new surface-disturbing or disruptive activities in active sage-grouse winter habitat from December 1 to March 31.	Completely Revised

GRSG Management from UMRBNM RMP	2025 BLM GRSG Approved RMP Amendment
The following mitigating measures will be applied to new surface-disturbing or disruptive activities for identified/important wildlife habitat in the Monument. Mitigating measures will be applied on a case-by-case basis during activity level planning after an on-site evaluation of the project area indicates the presence of a species. Exceptions to these mitigation measures may be granted by the authorized officer if an environmental review demonstrates there would be no adverse impacts, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species. Exceptions will also be considered for interim and final reclamation.	Partially Revised - revised direction to specify GRSG mitigation approach (refer to GRSG mitigation section)
Management Decisions: Wildland Fire Ecology and Management	
The appropriate management response to all wildland fires will be based on firefighter and public safety and resource values on BLM, state, and private land while considering the natural role of fire. Fires could be managed with less than full suppression efforts and, in most cases, allowed to burn to natural barriers or roads. The cost of suppression will also be considered. Resource values, such as sage-grouse habitat, will be protected during wildland fire suppression through the knowledge of resource advisors assigned to wildland fire incidents and/or information on the location of critical resource areas available to incident commanders; however, protection for resource values will be secondary to life safety and property values.	No change (same as 2009)
No similar action.	New fire and fuels actions added
Management Decisions: Lands and Realty	
The BLM's goal is to provide reasonable access for the public and for private landowners, as well as for the administrative needs and authorized uses of industry and government agencies. Under the Proclamation, all federal lands and interests in lands are "hereby appropriated and withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws . . . and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the monument. The establishment of this monument is subject to valid existing rights . . . Lands and interests in lands within the proposed monument not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States." In addition to the seven utility and transportation corridors that cross the Missouri River, the Klabzuba pipeline on the south side of the river will also be a designated corridor (Table 2.5). The corridor for the Klabzuba pipeline will only be on the south side of the river. The pipeline follows the McClelland/Stafford Ferry corridor on the north side of the river. [Language about corridors is general, but included here for reference. RMP goes forward with specifics about each corridor.]	No change (same as 2009)
Avoidance areas for ROWs include the scenic sections of the UMNWSR, the Bodmer Landscapes, the Cow Creek ACEC, cultural/historic sites, riparian and wetland areas, areas containing unique geologic formations, areas considered unsuitable due to erosion and slope, and sage-grouse seasonal habitat where impacts could not be mitigated or effectively controlled.	Completely Revised – Amendment applies to GRSG Only
Applications for commercial wind energy systems, solar energy systems and communication sites will not be considered.	No change (same as 2009)
No similar actions.	New ROW actions added

GRSG Management from UMRBNM RMP	2025 BLM GRSG Approved RMP Amendment
Management Decisions: Fluid Mineral Resources	
The BLM's goal is to provide reasonable oil and gas exploration and development on existing leased land without diminishing the objects of the Monument. The Proclamation does not allow new oil and gas leases in the Monument. The 43 federal oil and gas leases in the Monument are considered to have valid existing rights based upon the Proclamation, wherein it states "The establishment of this monument is subject to valid existing rights. The Secretary of Interior shall manage development on existing oil and gas leases within the monument, subject to valid existing rights, so as not to create any new impacts that would interfere with the proper care and management of the objects protected by this proclamation." The existing leases are also in compliance with their lease terms and conditions.	No change (same as 2009)
[RMP includes language about managing O&G leases in general with consideration for the objects of the monument: Through the environmental review process, the BLM will determine the potential impacts of oil and gas operations and mitigation measures to avoid interference with the proper care and management of the objects protected by the Monument. If the analysis and documentation indicate that a proposal may have impacts that are not in conformance with the Proclamation, regulation, BMPs or existing resource management plans, the BLM will work with the applicant to find alternatives or modifications to the proposal that will minimize such impacts through special permit conditions, consistent with the applicant's rights under applicable laws, regulations and stipulations. See the RMP for specific language.]	No change (same as 2009)
Conditions of Approval In addition to the oil and gas lease stipulations (Appendix H), reasonable conditions of approval, under BLM's authority to protect the objects in the Monument, will be applied to APDs. The conditions of approval will apply to all the oil and gas lease acreage (42,805 acres) in the Monument. The conditions of approval will be applied to the APD after an onsite evaluation indicates the presence of the specific resource and after considering the waivers, exceptions and modifications listed in Appendix H. The current APD review process will be utilized, which includes a 30-day posting period for public review of the proposal. The current stipulations (Form 3109-1) will apply to the portions of five of the 12 West HiLine leases that are outside the Monument (2,454 acres). Seasonal or distance restrictions will be placed on oil and gas activities to protect sage-grouse nesting areas and winter habitat, active ferruginous hawk nests, big game winter range, and bighorn sheep distribution and bighorn sheep lambing areas.	No change (same as 2009)
No similar actions.	New fluid mineral actions added
Greater Sage-Grouse Nesting Zone – Surface-disturbing or disruptive activities will be prohibited from March 1 to June 15 in sage-grouse nesting habitat within 2 miles of a lek. Travel on identified designated roads may include these timing restrictions or limited site visits. *Greater Sage-Grouse Winter Habitat* – Surface-disturbing or disruptive activities will be prohibited from December 1 to March 31 within winter habitat for sage-grouse. This condition will not apply to the operation and maintenance of production facilities. Travel on identified designated roads may include these timing restrictions or limited site visits. *Greater Sage-Grouse Leks* – Surface-disturbing or disruptive activities will be prohibited within 1/4 mile of active sage-grouse leks.	Completely Revised

GRSG Management from UMRBNM RMP	2025 BLM GRSG Approved RMP Amendment
Travel on identified designated roads will be restricted to the minimal vehicle size and type needed for the job. Due to resource issues, timing restrictions may be applied to site visits. For construction and heavy trucks related to production, equipment that exceeds 49dB will be restricted from being within 2 miles of sage-grouse leks between 4:00 a.m. and 8:00 a.m. and from 7:00 p.m. to 10:00 p.m. between March 1 and June 15.	No change (same as 2009)
Management Decisions: Livestock Grazing	
Grazing permittees will avoid the placement of salt or mineral supplements near leks during the breeding season (March 1 to June 15). The placement of salt or mineral supplements by other entities will not be allowed. Supplemental winter feeding will not be allowed on sage-grouse winter habitat and around leks. Concentrations of livestock near leks or winter habitat can disturb or displace sage-grouse. Therefore, concentrations of livestock on leks or other key sage-grouse habitats could be avoided by using conservative stocking levels*, locating salt or other supplements away from leks or winter habitat, adjusting grazing seasons and locating water facilities where they would not jeopardize habitat. ***Conservative Stocking Level** Conservative stocking level is a stocking rate that will result in a moderate utilization level (or less) by livestock at the end of the grazing period for the year. A conservative stocking level will be established based on resource management goals including maintaining healthy vegetation; acceptable livestock performance; expected normal weather; and annual plant production consistent with the Standards for Rangeland Health and Guidelines for Livestock Grazing Management.	Partially revised - revised direction to clarify
No similar actions.	New livestock grazing actions added
Management Decisions: Other Resources	
No similar actions.	New minerals management actions added NM withdrawn as part of the proclamation, current management will apply to these resources with clarifications for GRSG

2.7.1 Relevant Appendices

The following table shows which appendices from the 2009 plan have management direction that may change through the Approved RMPA. The appendices can be found on the Upper Missouri River Breaks National Monument RMP ePlanning website.

Appendix Name	2025 BLM Approved RMP Amendment
A: Federal and Montana Ambient Air Quality Standards	No change (same as 2009)
B: Standards for Rangeland Health and Guidelines for Livestock Grazing Management	No change (same as 2009)
C: Best Management Practices	New livestock grazing BMPs to be added based on amendment
D: Cultural Resource Use Categories	No change (same as 2009)
E: Watershed Planning Process	No change (same as 2009)
F: Grazing Allotments	No change (same as 2009)
G: Visitor Use Standards and Indicators	No change (same as 2009)
H: Oil and Gas	Partial revision – addition of new GRSG approach
I: Wildlife Mitigation Noise Levels	No change (same as 2009)
No similar appendices.	New appendices added such as Maps, Monitoring Framework, Habitat Indicators, and Livestock Grazing Best Management Practices appendices

2.8 NORTH DAKOTA RMP

This appendix presents the GRSG approved RMP amendment language from the 2015 record of decision for the North Dakota RMP Amendment. The North Dakota RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2015 appendices that are listed in **Section 2.8.1** of this appendix.

Table 8: GRSG RMP Management Direction in North Dakota RMP

GRSG Management from North Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Special Status Species (SSS)	
Goal SSS-1: Maintain and/or increase GRSG abundance and distribution by conserving, enhancing, or restoring the sagebrush ecosystem upon which populations depend, in cooperation with other conservation partners.	Completely Revised
Objective SSS-1.1: Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG. Manage PHMA so that discrete anthropogenic disturbances cover less than 3% of the total GRSG habitat.	Completely Revised
Objective SSS-1.2: Habitat Delineation: Delineate PHMA to encompass the 100% Breeding Bird Density map: 32,900 BLM surface acres (7% of total PHMA acres). Since mapping 75% of breeding bird density map misses the majority of GRSG habitat in North Dakota, 100% was used. See Figure 2-1, North Dakota Habitat Management Areas (Appendix A, Approved RMP Amendment Maps).	Completely Revised
Objective SSS-1.3: Habitat Delineation: Delineate GHMA to encompass the remainder of the habitat: 80 BLM surface acres. See Figure 2-1 (Appendix A).	Completely Revised
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language for Objective SSS 1-4. These two MDs are deleted and replace with the text below.] The habitat objectives for GRSG (Table 2-2) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-2 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat	Completely Revised – Table 2-2 removed, indicators now in Appendix 4.

GRSG Management from North Dakota RMP	2025 BLM GRSG Approved RMP Amendment
objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	*(see above)*
Action SSS-1.1: Protect PHMA from anthropogenic disturbances that will reduce distribution or abundance of GRSG. See Appendix E, Greater Sage-Grouse Disturbance Caps. In undertaking BLM management actions, and consistent with valid and existing rights and applicable law in authorizing third- party actions, the BLM will apply the lek buffer-distances identified in the US Geological Survey Report Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review (Open File Report 2014- 1239) in accordance with Appendix B, Applying Lek Buffer Distances When Approving Actions.	Completely Revised
Action SSS-1.2: If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of landownership) within GRSG PHMA in any given BSU (see Figure 2-2, North Dakota and South Dakota GRSG Biologically Significant Unit and Priority Habitat Management Areas [Appendix A]), then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within GRSG PHMA in any given BSU until the disturbance has been reduced to less than the cap. (BSU for this ARMPA is the summary of all the PHMA within the Dakotas GRSG population as delineated by USFWS.)	Completely Revised
Action SSS-1.3: If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of landownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.) will be permitted by BLM within PHMA in a project analysis area until the disturbance has been reduced to less than the cap.	Completely Revised

GRSG Management from North Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Action SSS-1.4: Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of landownership) in the PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area.	No change (same as 2015)
Action SSS-1.5: Implement Regional Mitigation Strategy (Appendix F, Regional Mitigation Strategy).	Completely Revised
No similar action.	New predation actions added
Habitat Restoration/Vegetation Management (VEG)	
Objective VEG-1.1: In all PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
Action VEG-1.1: Remove conifers encroaching into sagebrush habitats, in a manner that considers tribal cultural values. Prioritize treatments closest to occupied GRSG habitats and near occupied leks, and where juniper encroachment is phase 1 or phase 2. Use of site-specific analysis and principles like those included in RMRS-GTR-326: Using resistance and resilience concepts to reduce impacts of invasive annual grasses and altered fire regimes on the sagebrush ecosystem and GRSG: A strategic multi-scale approach (Chambers et al., 2014) and other ongoing modeling efforts to address conifer encroachment will help refine the location for specific priority areas to be treated.	Partially Revised - revised to clarify and remove FIAT reference.
Action VEG -1.2: Consideration for other threatened, endangered or sensitive species will be evaluated in addition to GRSG when prioritizing restoration projects.	No change (same as 2015)
Action VEG -1.3: Include GRSG habitat parameters as defined by State of North Dakota Sage-Grouse conservation plans and appropriate local information in habitat restoration objectives. Make meeting these objectives within PHMA the highest restoration priority, along with other priority species habitat.	Completely Revised
Action VEG -1.4: In PHMA, require use of native seeds for restoration based on availability, adaptation (ecological site potential), and probability of success. Where probability of success or adapted seed availability is low, non-native seeds may be used as long as they support GRSG habitat objectives.	No change (same as 2015)
Action VEG -1.5: Design post restoration management to ensure long-term persistence in PHMA. This could include changes in livestock grazing management, travel management, etc., to achieve and maintain the desired condition of the restoration effort that benefits GRSG.	No change (same as 2015)
Action VEG -1.6: In PHMA, consider potential changes in climate when proposing restoration seedings when using native plants. Consider collection from the warmer component of the species current range when selecting native species.	No change (same as 2015)
Action VEG -1.7: In PHMA, restore native (or desirable) plants and create landscape patterns which most benefit GRSG, as well as other priority species.	No change (same as 2015)

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Action VEG -1.8: Make re-establishment of sagebrush cover and desirable understory plants (relative to ecological site potential) a high priority for restoration efforts in PHMA. Prioritize areas for juniper removal to benefit GRSG habitat.	No change (same as 2015)
Action VEG -1.9: In PHMA fire prone areas, where sagebrush seed is required for GRSG habitat restoration, consider establishing seed harvest areas that are managed for seed production and are a priority for protection from outside disturbances.	No change (same as 2015)
Action VEG - 1.10: Treat areas that contain cheatgrass and other invasive or noxious species to minimize competition and favor establishment of desired species.	No change (same as 2015)
Fire and Fuels Management (FIRE)	
Fuels Management	
Action FIRE-1.1: In PHMA, design and implement fuels treatments with an emphasis on protecting existing sagebrush ecosystems.	No change (same as 2015)
Do not reduce sagebrush cover to less than 15% unless a fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of PHMA and conserve habitat quality for the species. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in future NEPA documents.	No change (same as 2015)
Apply appropriate seasonal restrictions for implementing fuels management treatments according to the type of seasonal habitats present in a priority area.	No change (same as 2015)
If prescribed fire is used in GRSG habitat, the NEPA analysis for the Burn Plan will address: • why alternative techniques were not selected as a viable options; • how GRSG goals and objectives will be met by its use; • how the COT report objectives will be addressed and met; • a risk assessment to address how potential threats to GRSG habitat will be minimized. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire can be used to meet specific fuels objectives that will protect GRSG habitat in PHMA (e.g., creation of fuel breaks that will disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat will need to be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality.	No change (same as 2015)
Monitor and control invasive vegetation post-treatment.	No change (same as 2015)
Rest treated areas from grazing for two full growing seasons unless vegetation recovery dictates otherwise.	No change (same as 2015)
Require use of native seeds for fuels management treatment based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet GRSG habitat objectives.	No change (same as 2015)

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Design post fuels management projects to ensure long-term persistence of seeded or pre- treatment native plants. This may require temporary or long-term changes in livestock grazing management, travel management, or other activities to achieve and maintain the desired condition of the fuels management project.	No change (same as 2015)
Action FIRE -1.2: Design fuels management projects in PHMA to strategically and effectively reduce wildfire threats in the greatest area.	No change (same as 2015)
Action FIRE -1.3: In PHMA, during fuels management project design, consider the utility of using livestock to strategically reduce fine fuels, and implement grazing management that will accomplish this objective. Consult with ecologists to minimize impacts on native perennial grasses.	No change (same as 2015)
Action FIRE -1.4: If prescribed fire is used, the Burn Plan will clearly indicate how COT objectives will be addressed and met, and why alternative techniques are not applicable. A fire risk assessment will be completed for implementation of prescribed fire used to meet the GRSG goals and objectives in PHMA (see Appendix H, GRSG Wildfire and Invasive Species Habitat Assessment).	Completely Revised
Fire Operations	
Action FIRE -1.5: The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection. In PHMA, prioritize suppression, immediately after life and property, to conserve the habitat. See Appendix H, which will be completed to help further refine fire management actions once this plan is completed.	No change (same as 2015)
Action FIRE -1.6: In GHMA, prioritize suppression where wildfires threaten PHMA.	No change (same as 2015)
Action FIRE -1.7: Follow the most current BMPs/RDFs for fire and fuels (Appendix C, Required Design Features).	No change (same as 2015)
Emergency Stabilization and Rehabilitation	
Action FIRE -1.8: In PHMA, prioritize native seed allocation for use in GRSG habitat in years when preferred native seed is in short supply. This may require reallocation of native seed from emergency stabilization and rehabilitation (ES&R) projects outside of PHMA to those inside it. Use of native plant seeds for ES&R seedings is required based on availability, adaptation (site potential), and probability of success. Where probability of success or native seed availability is low, non-native seeds may be used as long as they meet GRSG habitat conservation objectives. Re-establishment of appropriate sagebrush species/subspecies and important understory plants, relative to site potential, shall be the highest priority for rehabilitation efforts.	No change (same as 2015)
Action FIRE -1.9: In PHMA, design post ES&R management to ensure long-term persistence of seeded or pre-burn native plants. This may require temporary or long-term changes in livestock grazing, and travel management, etc., to achieve and maintain the desired condition of ES&R projects to benefit GRSG.	No change (same as 2015)
Action FIRE -1.10: In PHMA, consider potential changes in climate when proposing post-fire seedings using native plants. Consider seed collections from the warmer component within a species' current range for selection of native seed.	No change (same as 2015)

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Livestock Grazing (LG)	
Action LG-1.1: Grazing will be allowed on all lands identified as suitable (approximately 32,945 acres). See Figure 2-3, North Dakota Livestock Grazing (Appendix A).	Completely Revised
Action LG-1.2: Allocate up to an estimated 5,780 animal unit months to livestock in the long term (livestock use set at 25% of average annual forage production).	Completely Revised
Action LG-1.3: Within PHMA, incorporate GRSG habitat objectives and management considerations into all BLM grazing allotments through allotment management plans (AMP) or permit renewals. Develop standards with State of North Dakota and USFWS.	Completely Revised
Action LG-1.4: In PHMA, work cooperatively on integrated ranch planning within GRSG habitat so operations with deeded/BLM allotments can be planned as single units.	Completely Revised
Action LG-1.5: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (such as fire) and legal obligations.	Completely Revised
The NEPA analysis for renewals and modifications of livestock grazing permits/leases that include lands within PHMA will include specific management thresholds, based on GRSG Habitat Objectives (Table 2-2), Land Health Standards (43 CFR, Part 4180.2) and ecological site potential, and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
Allotments within PHMA, focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks can include monitoring for actual use, utilization, and use supervision.	Completely Revised
Action LG-1.6: In PHMA, conduct land health assessments that include (at a minimum) indicators and measurements of structure/condition/composition of vegetation specific to achieving GRSG habitat objectives. Local objectives will be developed at the field office level in partnership with North Dakota Game and Fish Department and USFWS, and incorporated into AMPs or livestock grazing permits as appropriate incorporating best available science.	Completely Revised
Action LG-1.7: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR 4110.2-3.	Removed
Implementation Management Action after Land Health Evaluations	
Action LG-1.8: Develop specific objectives to conserve, enhance or restore PHMA based on ecological site descriptions (ESD) and assessments (including within wetlands and riparian areas). If an effective grazing system that meets GRSG habitat requirements is not already in place, analyze at least one alternative that conserves, restores or enhances GRSG habitat in the NEPA document prepared for the permit renewal.	Completely Revised

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Action LG-1.9: In PHMA, manage for vegetation composition and structure consistent with GRSG seasonal habitat objectives. ESDs can help determine whether or not the GRSG seasonal habitat objectives are consistent with the ecological site potential within the reference state. GRSG seasonal habitat objectives and ecological site potential within reference states are not always going to be the same.	Completely Revised
Action LG-1.10: In PHMA, implement management actions (grazing decisions, AMP/Conservation Plan development, or other agreements) to modify grazing management to meet State of North Dakota seasonal GRSG habitat requirements, where allotment evaluations indicate land health assessments are not being met due to livestock. Consider singly, or in combination, changes in: • Season or timing of use; • Numbers of livestock (includes temporary non-use or livestock removal); • Distribution of livestock use; • Intensity of use; and • Type of livestock (e.g., cattle, sheep, horses, llamas, alpacas, and goats).	Completely Revised
Action LG-1.11: During drought periods, prioritize evaluating effects of the drought in PHMA relative to their needs for food and cover. Management will continue to be in accordance with the Montana- Dakotas Drought Policy (see Appendix H, Drought Policy, in North Dakota Greater Sage-Grouse Proposed RMPA/Final EIS).	Completely Revised
Riparian Areas and Wet Meadows	
Action LG-1.12: Where riparian and wetland areas are already meeting standards, they will be maintained in that condition or better. Where a site's capability is less than proper functioning condition (PFC), BLM will manage to achieve or move towards capability. Within PHMA and GHMA, manage wet meadows to maintain a component of perennial forbs with diverse species richness relative to site potential (e.g., reference state) to facilitate brood rearing.	Partially Revised - revised direction to clarify
Action LG-1.13: In PHMA, where riparian areas and wet meadows meet PFC, strive to move towards GRSG habitat objectives within capabilities of the reference state vegetation relative to the ESD. Example: Within PHMA reduce, where necessary, hot season grazing on riparian and meadow complexes to promote recovery or maintenance of appropriate vegetation and water quality. Utilize fencing/herding techniques, seasonal use, or livestock distribution changes where necessary to reduce pressure on riparian or wet meadow vegetation used by GRSG in the hot season (summer).	Partially Revised - revised direction to clarify
Action LG-1.14: Authorize new water development for diversion from spring or seep source only when PHMA will be maintained or benefit from the development. This includes developing new water sources for livestock as part of an AMP/Conservation Plan to improve GRSG habitat.	Partially Revised - revised direction to clarify
Action LG-1.15: Analyze springs, seeps and associated pipelines at time of grazing lease renewal to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within PHMA. Make modifications where necessary, considering impacts on other water uses when such considerations are neutral or beneficial to GRSG.	Partially Revised - revised direction to clarify

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Treatments to Increase Forage for Livestock/Wild Ungulates	
Action LG-1.16: In PHMA, allow treatments that conserve, enhance or restore GRSG habitat as well as other priority species habitat (this includes treatments that benefit livestock as part of an AMP/Conservation Plan to improve GRSG habitat).	Partially Revised - revised direction to clarify
Action LG-1.17: Evaluate the role of existing seedings that are currently composed of primarily introduced perennial grasses in and adjacent to PHMA to determine if they should be restored to sagebrush or habitat of higher quality for GRSG. If these seedings are part of an AMP/Conservation Plan or if they provide value in conserving or enhancing the rest of the PHMA, then no restoration will be necessary. Assess the compatibility of these seedings for GRSG habitat or as a component of a grazing system during the land health assessments.	Partially Revised - revised direction to clarify
Structural Range Improvement and Livestock Management Tools	
Action LG-1.18: In PHMA, design any new structural range improvements and location of supplements (salt or protein blocks) to conserve, enhance, or restore GRSG habitat through an improved grazing management system relative to GRSG objectives. Structural range improvements, in this context, include but are not limited to: cattle guards, fences, exclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks (including moveable tanks used in livestock water hauling), windmills, ponds/reservoirs, solar panels and spring developments. Potential for invasive species establishment or increase following construction must be considered in the project planning process and monitored and treated post-construction.	Completely Revised
Action LG-1.19: When developing or modifying water developments in PHMA, use applicable RDFs (Appendix C) to mitigate potential impacts from West Nile virus.	Completely Revised
Action LG-1.20: In PHMA, evaluate existing structural range improvements and location of supplements (salt or protein blocks) during grazing lease renewal process to make sure they conserve, enhance or restore GRSG habitat. To reduce outright GRSG strikes and mortality, remove, modify or mark fences in high risk areas within PHMA based on proximity to lek, lek size, and topography. Monitor for, and treat invasive species associated with existing range improvements.	Completely Revised
Mineral Resources (MR)	
Fluid Minerals	
Objective MR-1.1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non- habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 US Code 226(p) and 43 CFR, Part 3162.3-1(h).	Completely Revised

GRSG Management from North Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Where a proposed fluid mineral development project on an existing lease could adversely affect GRSG populations or habitat, the BLM will work with the lessees, operators, or other project proponents to avoid, minimize, and apply compensatory mitigation for adverse impacts to the extent compatible with lessees' rights to drill and produce fluid mineral resources. The BLM will work with the lessee, operator, or project proponent in developing an application for permit to drill for the lease to avoid and minimize impacts on GRSG or its habitat and will ensure that the best information about the GRSG and its habitat informs and helps to guide development of such Federal leases.	Completely Revised
Unleased Federal Fluid Mineral Estate	
Action MR-1.1: Open to oil and gas leasing and development; however, surface occupancy and use will be prohibited within PHMA (NSO). Upon expiration or termination of existing leases, apply NSO. See Figure 2-4, North Dakota Fluid Minerals (Oil, Gas, and Geothermal) (Appendix A).	Completely Revised
No waivers or modifications to a fluid mineral lease no-surface-occupancy stipulation will be granted. The BLM Authorized Officer may grant an exception to a fluid mineral lease no-surface-occupancy stipulation only where the proposed action: Will not have direct, indirect, or cumulative effects on GRSG or its habitat; or, Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and will provide a clear conservation gain to GRSG. Exceptions based on conservation gain (ii) may only be considered in (a) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) areas of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMPA. Exceptions based on conservation gain must also include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action's impacts. Any exceptions to this lease stipulation may be approved by the BLM Authorized Officer only with the concurrence of the State Director. The BLM Authorized Officer may not grant an exception unless the state wildlife agency (NDGF), the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and NDGF Director for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly.	Completely Revised
Action MR-1.2: In GHMA, surface occupancy and use will be subject to special operating constraints (CSU) (Appendix G, Oil and Gas Stipulations).	Completely Revised
Action MR-1.3: Allow geophysical exploration within PHMA to obtain exploratory information for areas outside of and adjacent to PHMA.	Completely Revised
Action MR-1.4: Allow geophysical operations by existing roads and trails, or helicopter-portable drilling methods, and in accordance with seasonal timing restrictions and/or other restrictions that may apply.	Completely Revised

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Leased Federal Fluid Mineral Estate	
Action MR-1.5: During implementation level review and decisions (e.g., approval of an application for permit to drill and Sundry Notice) and upon completion of the environmental record of review (43 CFR, Part 3162.5), include appropriate documentation of compliance with NEPA. In this process evaluate, among other things: (1) Whether the conservation measure is "reasonable" (43 CFR, Part 3101.1-2) with the valid existing rights; and (2) Whether the action is in conformance with the approved ARMPA.	Completely Revised
Conservation Measure #1: The following operating constraints will be applied to existing leases as conditions of approval (COAs) in PHMA and GHMA. Exceptions may be granted by the BLM Authorized Officer if an environmental review demonstrates that effects can be mitigated to an acceptable level, habitat for the species is not present in the area, or portions of the area can be occupied without affecting a particular species. Exceptions may also be granted where the short-term effects are mitigated by the long-term benefits. The BLM may add additional site-specific restrictions as deemed necessary by further environmental analysis and as developed through coordination with other federal, state, and local regulatory and resource agencies. • Surface disturbing/disruptive activities will prevent or minimize disturbance to GRSG or their habitat. Except as identified above or during emergency situations, activities will not compromise the functionality of the habitat. • Manage water developments to reduce the spread of West Nile virus within GRSG habitat areas. • Site and/or minimize linear ROW to reduce disturbance to sagebrush habitats. • Maximize placement of new utility developments (power lines, pipelines, etc.) and transportation routes in existing ROWs. • Power lines will be buried, eliminated, designed or sited in a manner which does not impact GRSG. • Placement of other high profile structures, exceeding 10 feet in height, will be eliminated, designed or sited in a manner which does not impact GRSG. • Remote monitoring of production facilities must be utilized and all permit applications must contain a plan to reduce the frequency of vehicle use. • Maximize the area of interim reclamation on long-term access roads and well pads including reshaping, top-soiling and re-vegetating cut and fill slopes. Utilize native grass species mix which includes sagebrush and forbs. • Restore disturbed areas at final reclamation to pre-disturbance conditions or desired plant community. Utilize native grass species mix which includes sagebrush and forbs. • Permanent (longer than 2 months) structures which create movement must be designed or sited to minimize impacts on GRSG. • As reasonable (43 CFR, Part 3101.1-2), in consideration of valid existing rights, and to achieve a net conservation gain, the BLM will require compensatory mitigation when impacts cannot be adequately avoided and minimized, and residual impacts will result	Completely Revised

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in habitat loss and degradation. Compensatory mitigation actions will align with the recommendations in the Regional Mitigation Strategy (see Appendix F), as appropriate. A priority may be given to compensatory mitigation actions in the same PHMA as is being impacted, unless a greater benefit can be achieved elsewhere. Compensatory mitigation will be considered when no feasible options remain to adequately avoid and minimize impacts within and immediately adjacent to the impacted site.	*(see above)*
Conservation Measure #2: Make applicable RDFs (Appendix C) mandatory as COA within PHMA.	Completely Revised
Solid Minerals	
Coal	
Action MR-1.6: At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1). See Figure 2-13, North Dakota Coal (Appendix A).	Completely Revised
Action MR-1.7: Subsurface mines - Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of PHMA.	No change (same as 2015)
Action MR-1.8: In GHMA, apply minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal GRSG habitats. Apply these measures during activity level planning. Use additional, effective mitigation to offset impacts as appropriate (determined by local options/needs).	No change (same as 2015)
Locatable Minerals	
Action MR-1.9: In PHMA, proposed actions under Plan of Operations and Notices will be analyzed on a case-by-case basis in cooperation with the State of North Dakota, and RDFs (Appendix C) will be applied to the extent consistent with applicable law. See Figure 2-5, North Dakota Locatable Minerals (Appendix A).	No change (same as 2015)
Mineral Materials	
Action MR-1.10: Close PHMA to mineral material sales. See Figure 2-6, North Dakota Salable Minerals (Mineral Materials) (Appendix A).	Completely Revised
Action MR-1.11: In PHMA, restore salable mineral pits no longer in use to meet GRSG habitat conservation objectives. Note: Although there are no authorized mineral pits in the planning area, any trespass pits found in the planning area will be subject to restoration.	No change (same as 2015)
Nonenergy Leasable Minerals	
Action MR-1.12: Close PHMA to nonenergy leasable mineral leasing. See Figure 2-7, North Dakota Nonenergy Leasables (Appendix A). This includes not permitting any new leases to expand an existing mine.	Completely Revised
Action MR-1.13: For existing nonenergy leasable mineral leases in PHMA, follow the same RDFs applied to fluid minerals (Appendix C), when wells are used for solution mining.	No change (same as 2015)

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Mineral Split Estate	
Action MR-1.14: Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in non-federal ownership, apply the same stipulations, COAs, and/or conservation measures and RDFs applied if the mineral estate is developed on BLM-administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised - revised direction to clarify HMA language
Action MR-1.15: Where the federal government owns the surface and the mineral estate is in non- federal ownership in PHMA and GHMA, apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised - revised direction to clarify HMA language
Lands and Realty (LR)	
Objective LR-1.1: Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.	No change (same as 2015)
Rights-of-Way	
Action LR-1.1: PHMA will be managed as ROW avoidance area for high-voltage transmission lines (100 kilovolt [kV] and over) and large pipelines (24 inches in width and over). See Figure 2-10a, North Dakota Major Rights-of-Way (Appendix A).	Completely Revised
Where new ROWs are required, co-locate new ROW within existing ROWs or where it best minimizes impacts on GRSG and GRSG habitat.	Completely Revised
Action LR-1.2: PHMA will be managed as ROW avoidance area for minor ROWs (including communication sites and towers). See Figure 2-10b, North Dakota Minor Rights-of-Way (Appendix A).	Completely Revised
Action LR-1.3: Make PHMA exclusion area for new ROW wind and solar energy authorizations. See Figure 2-8, North Dakota Wind, and Figure 2-9, North Dakota Solar (Appendix A).	Completely Revised
Action LR-1.4: When addressing ROW authorizations in PHMA identify and evaluate opportunities to remove, bury or modify existing power lines within PHMA.	No change (same as 2015)
Action LR-1.5: In PHMA, where existing leases or ROWs have had some level of development (road, fence, well, etc.) and are no longer in use, reclaim the site by removing these features and restoring the habitat.	No change (same as 2015)
Action LR-1.6: GHMA will be managed as ROW avoidance area for high-voltage transmission lines (100kV and over) and large pipelines (24 inches in width and over).	Completely Revised
Action LR-1.7: Minor ROWs will be allowed in GHMA with appropriate mitigation and conservation measures identified within the terms of the authorization to minimize surface disturbing and disruptive activities.	Completely Revised
Action LR-1.8: Make GHMA avoidance area for new wind and solar energy authorizations. See Figure 2-8 and Figure 2-9 (Appendix A).	Completely Revised
Action LR-1.9: Where new ROWs are necessary in GHMA, co-locate new ROWs within existing ROWs where possible.	No change (same as 2015)
Action LR-1.10: PHMA will be avoidance areas for leases/land use authorizations, which can be for agricultural, occupancy, or filming. Leases/land use authorizations will be allowed in GHMA with appropriate mitigation and conservation measures identified within the terms of the authorization to minimize surface disturbing and disruptive activities.	No change (same as 2015)

GRSG Management from North Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Action LR-1.11: Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table 2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.	Partially revised – move to PHMA section, update MF ref
Land Tenure Adjustment	
Action LR-1.12: Lands classified as PHMA and GHMA for GRSG will be retained in federal management unless: (1) the BLM can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to GRSG or (2) the BLM can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of GRSG. See Figure 2-11, North Dakota Land Tenure (Appendix A).	No change (same as 2015)
Action LR-1.13: PHMA will be a priority in consideration of land acquisitions. Consider GRSG for all land tenure actions.	No change (same as 2015)
Recommend Land Withdrawals	
Action LR-1.14: No areas are currently withdrawn from minerals on BLM surface.	No change (same as 2015)
Action LR-1.15: In PHMA, do not recommend lands withdrawals (i.e., those not associated with mineral activity) unless the land management is consistent with GRSG conservation measures. (For example, in a proposed withdrawal for a military training range buffer area, manage the buffer area with GRSG conservation measures.)	No change (same as 2015)
Recreation (REC)	
Action REC-1.1: Only allow Special Recreation Permits that will have neutral or beneficial effects on PHMA.	No change (same as 2015)
Action REC-1.2: In PHMA, do not construct new recreation facilities (e.g., campgrounds, trails, trailheads, and staging areas) unless the development will have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from important areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - revised direction, see mitigation and SSS sections.
Travel and Transportation (TTM)	
Action TTM-1.1: In PHMA and GHMA, limit off-high vehicle (OHV) travel to existing roads, primitive roads, and trails at a minimum, until such time as travel management planning is complete and routes are either designated or closed. See Figure 2-12, North Dakota Trails and Travel Management (Appendix A).	No change (same as 2015)
Action TTM-1.2: In PHMA, travel management will evaluate the need for permanent, or seasonal, road or area closures where vehicle use is causing or will cause adverse effects upon habitat.	No change (same as 2015)
Action TTM-1.3: In PHMA and GHMA, complete activity level travel plans within 5 years of the ROD. During activity level planning, where appropriate, designate routes in PHMA and GHMA with current administrative/agency purpose or need to administrative access only.	No change (same as 2015)
Action TTM-1.4: In PHMA, limit route construction to realignments of existing designated routes if that realignment has a minimal impact on GRSG habitat, eliminates the need to construct a new road, or is necessary for motorist safety. Allow new routes/realignments in PHMA and GHMA during site-specific travel planning if it improves GRSG habitat and resource conditions.	No change (same as 2015)
Action TTM-1.5: In PHMA, use existing routes, or realignments as described above to access valid existing rights that are not yet developed. If valid existing rights cannot be accessed via existing routes, then build any new route constructed to the absolute minimum standard necessary.	No change (same as 2015)

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Action TTM-1.6: In PHMA and GHMA, allow no upgrading of existing routes that will change route category (road, primitive road, or trail) or capacity unless the upgrading will have minimal impact on GRSG habitat, is necessary for motorist safety, or eliminates the need to construct a new road.	No change (same as 2015)
Action TTM-1.7: When travel management plans are complete, conduct restoration of roads, primitive roads and trails in PHMA and GHMA.	No change (same as 2015)
Action TTM-1.8: When reseeding roads, primitive roads and trails in PHMA and GHMA, use appropriate seed mixes and consider the use of transplanted sagebrush.	No change (same as 2015)
Action TTM-1.9: In PHMA and GHMA, temporary closures will be considered in accordance with 43 CFR, subpart 8364 (Closures and Restrictions); 43 CFR, subpart 8351 (Designated National Area); 43 CFR, subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); 43 CFR, subpart 8341 (Conditions of Use).	No change (same as 2015)
Temporary closure or restriction orders under these authorities are enacted at the discretion of the BLM Authorized Officer to resolve management conflicts and protect persons, property, and public lands and resources. Where a BLM Authorized Officer determines that OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence. (43 CFR, Part 8341.2) A closure or restriction order shall be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders shall be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)

2.8.1 Relevant Appendices

The following table shows which appendices from the 2015 plan have management direction that changed through the Approved RMPA. The appendices can be found on the North Dakota GRSG ePlanning website.

Appendix Name	2025 BLM Approved RMP Amendment
A: Approved RMP Amendment Maps	Completely Revised – See new maps in Appendix 1
B: Applying Lek Buffer Distances When Approving Actions	Completely Revised
C: Required Design Features	Partially updated – see new livestock grazing BMPs
D: The Greater Sage-Grouse Monitoring Framework	Completely Revised
E: Greater Sage-Grouse Disturbance Caps	Removed
F: Regional Mitigation Strategy	Removed
G: Oil and Gas Stipulations	Completely revised – see Appendix 6
H: GRSG Wildfire and Invasive Species Habitat Assessment	Removed

2.9 SOUTH DAKOTA RMP

This appendix presents the GRSG approved RMP language from the 2015 record of decision for the South Dakota RMP Revision. The South Dakota RMP was not amended in 2019. The tables below note which goals, objectives, appendices, and management decisions/actions would be amended by the Approved RMP Amendment (RMPA), either partially or completely, and which existing decisions would not be amended at all. The types of change to existing management direction from the Approved RMPA include: no change, partial revision, complete revision, and new direction. Note that any references to tables and appendices are to those applicable 2015 appendices that are listed in **Section 2.9.1** of this appendix.

Table 9: Summary of Goals, Objectives, and Management Actions in South Dakota RMP

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
GRSG and SSS Goals	
Ensure the long-term and self-sustaining persistence of special status species in South Dakota.	No change (same as 2015)
Protect/maintain populations of special status species by minimizing direct mortality and impacts on habitat.	No change (same as 2015)
Provide suitable habitat condition to allow for movement between large blocks of habitat and seasonal and specialized habitats on a local and landscape scale.	No change (same as 2015)
Maintain or improve specialized habitats on a local and landscape scale.	No change (same as 2015)
Maintain and/or increase GRSG abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with other conservation partners.	Completely Revised
Within GRSG habitat areas, the BLM will maintain habitat for viable GRSG populations.	Completely Revised
Manage for the biological integrity and habitat suitability to facilitate the conservation, recovery, and maintenance of populations of fish and wildlife to avoid contributing to the listing of or jeopardizing the continued existence or recovery of special status species and their habitats.	No change (same as 2015)
Maintain or enhance areas of ecological importance for special status wildlife species.	No change (same as 2015)
Conserve and recover special status wildlife species by determining and implementing conservation strategies including restoration opportunities, use restrictions, and management decisions.	No change (same as 2015)
Manage specific environmental hazards, risks, and impacts in a manner compatible with special status wildlife species health.	No change (same as 2015)
Identify habitat thresholds necessary to sustain well-distributed healthy populations of special status wildlife species to avoid future listings under the ESA.	No change (same as 2015)
Develop and implement the BMPs, activity plans, or use other mechanisms to protect high priority special status wildlife species.	No change (same as 2015)
Manage special status fish and wildlife species in consideration of the working landscape and the intermingled land ownership pattern that is present.	No change (same as 2015)
Across the planning area, maintain greater sagebrush cover at levels at or near the full potential for each ecological site.	No change (same as 2015)
Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA.	Completely Revised

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
In all PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush canopy cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734- 6).	No change (same as 2015)
Manage wildfire and fuels for the protection of public health, safety, property, and resource values, emphasizing firefighter and public safety as the single overriding priority. The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be done based on the values to be protected, human health and safety, and the costs of protection.	No change (same as 2015)
Improve the resilience of wildlife habitats to protect wildlife communities from stressors and events such as severe wildfire and climate change.	No change (same as 2015)
Manage PHMA so that discrete anthropogenic (human-caused) disturbances do not adversely impact GRSG distribution or abundance.	No change (same as 2015)
No similar action.	New predation actions added
No similar action.	New sensitive status species actions added
GRSG GHMA Management	
MD-10 Greater Sage-Grouse GHMA: includes 23,684 surface and 247,771 subsurface oil and gas minerals acres.	Completely Revised
MD-11 Surface Disturbing and Disruptive Activities and Fluid Minerals: Surface disturbing and disruptive activities will be avoided within 6/10 of a mile of sage-grouse leks. BLM will apply the lek buffer-distances in the US Geological Survey (USGS) Report "Conservation Buffer Distance Estimates for Greater Sage-Grouse-A Review (Open File Report 2014-1239)" in both GHMA and PHMA as detailed in Appendix B, Applying Lek Buffer-Distances When Approving Actions.	Completely Revised
Fluid Minerals - NSO: NSO or use within 6/10 of a mile from leks. The Authorized Officer (AO) ay waive this stipulation if no portion of the leasehold is within 6/10 mile of the perimeter of an active lek.	Completely Revised
MD-12 Renewable Energy ROWs: Renewable Energy ROWs: 1 mile from leks will be an exclusion area, the rest of the GHMA will be an avoidance area.	Completely Revised
Other types of ROWs: Major ROWs (power lines 100 kilovolt (kV) and pipelines 24 inches and over) will be avoided. Minor ROWs within 2 miles of a lek will be avoidance, the rest of the GHMA will be open.	Completely Revised
Where new ROWs are necessary, ROWs will be co-located within existing ROWs where possible.	No change (same as 2015)
GHMA and PHMA within the Center of the Nation will be Class 2 land retention areas (Appendix A1: Figure 2-10).	No change (same as 2015)

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
MD-13 Land Disposals: Any land disposals will be limited and subject to specialist review. Refer to the Land Tenure subsection of the Lands section of this table for additional details about Class 2 retention criteria. BLM could also dispose of land in PHMA and GHMA within the Center of the Nation areas in cases where there is mixed ownership, and land exchanges will allow for additional or more contiguous federal ownership patterns and the criteria below are met. Under GRSG habitat areas with minority federal ownership, BLM will develop an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure, consideration will be given to pursuing a permanent conservation easement. Lands classified as PHMA and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, <u>including land exchanges,</u> will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal<u>, including land exchanges,</u> of the lands will have no direct or indirect adverse impact on conservation of the GRSG.	No change (same as 2015)
MD-14 Surface Disturbing and Disruptive Activities and Fluid Minerals: Surface disturbing and disruptive activities will be avoided in winter range for sage-grouse unless the project proponent can clearly demonstrate that the impacts can be adequately mitigated, Conservation Actions, Guidelines or needed design features (Appendices C and F) are included and the goals for sage-grouse are not compromised. Prior to approving any surface disturbance and disruptive activities, the project proponent will be required to provide a plan approved by BLM to maintain suitability of habitat and avoid or minimize habitat loss and disturbance.	Completely Revised
Fluid Minerals - NSO: GRSG crucial winter range will be managed as a NSO for oil and gas development and exploration.	Completely Revised
MD-15 Renewable Energy/Winter Range: GRSG winter range will be an exclusion area.	Completely Revised
Within GHMA, major ROWs are avoidance and minor ROWs are avoidance within two miles of leks with GHMA. The rest of the GHMA is open to minor ROWs. GRSG winter range will be an avoidance area. In cases where avoidance is not possible, BLM may require design features to mitigate impacts or co-location of new ROWs with existing ROWs where possible.	Completely Revised
MD-16 Surface Disturbing and Disruptive Activities and Fluid Minerals: Fluid Minerals - A CSU stipulation will apply within 2 miles of leks. The AO may waive this stipulation if no portion of the leasehold is within 2 miles of the perimeter of an active lek. Fluid Minerals: A CSU stipulation will apply within 2 miles of leks. The AO may waive this stipulation if no portion of the leasehold is within 2 miles of the perimeter of an active lek.	Completely Revised
MD-17 Greater Sage-Grouse GHMA: Same as MD-12.	Completely Revised

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
MD-18 Utility and Power lines: All new utility and power lines (overhead lines) that can be safely buried will be buried within 2 miles of GRSG leks and within GRSG winter range. When burial of power lines is not possible, above ground lines will be located and designed to minimize impacts of predation, collision and other associated stressors to GRSG. Existing overhead lines within 2 miles of leks and within GRSG winter range will be evaluated for threats to GRSG and if necessary, modified to reduce the threat. If modification is not likely to be effective, the overhead line may be relocated. Any requirements for modification or relocation of existing overhead lines will be subject to valid existing rights.	Partially Revised - revised direction to clarify
Oil and Gas (O&G) - CSU: All new utility and power lines that can be safely buried will be buried within 2 miles of sage-grouse leks and within sage-grouse winter range. When burial of power lines is not possible, above ground lines will be located and designed to minimize impacts of predation, collision and other associated stressors to sage-grouse. Existing overhead lines within 2 miles of leks and within sage-grouse winter range will be evaluated for threats to sage-grouse and if necessary, modified to reduce the threat. If modification will not likely be effective, the overhead line may be relocated. Any requirements for modification or relocation of existing overhead lines will be subject to valid existing rights.	Completely Revised
MD-19 Weed Treatments: Timing Limit (TL): Herbicide treatments limited to spot weed treatments only within a 3 mile buffer zone, of known sage-grouse leks from March 1-June 30. Exceptions to treatment types and dates of treatments may be allowed to address aggressively spreading weeds or invasive plants that require aggressive and timely treatment during this period following consultation with necessary specialists to minimize impacts on sage-grouse.	No change (same as 2015)
MD-20 Temporary Travel Closures: Temporary travel closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); and 43 CFR subpart 8341 (Conditions of Use). Temporary closure or restriction orders under these authorities are enacted at the discretion of the AO to resolve management conflicts and protect persons, property, and public lands and resources.	No change (same as 2015)
Where an AO determines that off-highway vehicles (OHV) are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures are implemented to prevent recurrence (43 CFR, Part 8341.2).	No change (same as 2015)
A closure or restriction order will be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders will be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Management Decisions for Greater Sage-Grouse Priority Habitat Management Areas	
MD-20 Greater Sage-Grouse PHMA: Manage PHMA so that discrete anthropogenic (human- caused) disturbances do not adversely impact GRSG distribution or abundance.	No change (same as 2015)
MD-21 Greater Sage-Grouse PHMA: PHMA will be the same as the State of South Dakota Sage- grouse Core Areas (SDGFP 2014); which includes 127,735 surface and 412,822 subsurface oil and gas minerals acres. See Figure 1-2 and 1-3. Adaptive management for sage-grouse is described in Chapter 2 Narrative section under Greater Sage-Grouse. BLM will apply the lek buffer-distances in the USGS Report "Conservation Buffer Distance Estimates for Greater Sage-Grouse-A Review (Open File Report 2014-1239)" in both GHMA and PHMA as detailed in Appendix B, Applying Lek Buffer-Distances When Approving Actions.	Completely Revised
MD-22 Surface Disturbing and Disruptive Activities and Fluid Minerals: Surface disturbing and disruptive activities may be allowed if the project proponent can clearly demonstrate that adverse impacts on sage-grouse can be adequately mitigated through BMPs, guidelines (Appendix J), disturbance is within the 3% disturbance cap limit (Appendix E) and RDFs (Appendix C) are included and the goals for sage-grouse not compromised. If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) within GRSG PHMA in any given BSU, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 hard rock mining law, valid existing rights, etc.) will be permitted by BLM within PHMA in any given BSU until the disturbance has been reduced to less than the cap.	Completely Revised
If the 3% anthropogenic disturbance cap is exceeded on lands (regardless of land ownership) or if anthropogenic disturbance and habitat loss associated with conversion to agricultural tillage or fire exceed 5% within a project analysis area in PHMA, then no further discrete anthropogenic disturbances (subject to applicable laws and regulations, such as the 1872 Mining Law, valid existing rights, etc.) will be permitted by BLM within PHMA in a project analysis area until the disturbance has been reduced to less than the cap. Within existing designated utility corridors, the 3% disturbance cap may be exceeded at the project scale if the site specific NEPA analysis indicates that a net conservation gain to the species will be achieved. This exception is limited to projects which fulfill the use for which the corridors were designated (ex., transmission lines, pipelines) and the designated width of a corridor will not be exceeded as a result of any project co-location.	Completely Revised
Subject to applicable laws and regulations and valid existing rights, if the average density of one energy and mining facility per 640 acres (the density cap) is exceeded on all lands (regardless of land ownership) in PHMA within a proposed project analysis area, then no further disturbance from energy or mining facilities will be permitted by BLM: (1) until disturbance in the proposed project analysis area has been reduced to maintain the limit under the cap; or (2) unless the energy or mining facility is co-located into an existing disturbed area. This direction applies to the following: oil and gas wells and development facilities, coal mines, wind towers, solar fields, geothermal, and mining (active locatable, leasable, and saleable developments). Appendix E provides specific details about how calculations are determined for disturbance caps. Prior to approving any surface disturbance and disruptive activities, the project proponent will be required to provide a plan approved by BLM to maintain suitability of habitat and avoid or minimize habitat loss and disturbance.	No change (same as 2015)

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Fluid Minerals - NSO: PHMA will be managed as NSO and Use (127,735 surface and 412,822 oil and gas subsurface minerals acres). These areas will be open to oil and gas leasing with a NSO stipulation. All sage-grouse habitat that is not part of PHMA will be managed as GHMA as noted in Figure 1-2.	Completely Revised
Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA.	Completely Revised
Waivers or modifications to a fluid minerals lease NSO stipulation will not be granted. The AO may grant an exception to a fluid mineral lease NSO stipulation in certain cases. Exceptions based on conservation gain (ii) may only be considered in (A) PHMA of mixed ownership where federal minerals underlie less than fifty percent of the total surface, or (b) area of the public lands where the proposed exception is an alternative to an action occurring on a nearby parcel subject to a valid Federal fluid mineral lease existing as of the date of this RMP. See Appendix G.	Completely Revised
Oil and gas stipulations will also apply to geothermal resources. Locatable minerals will be open. RDFs (Appendix C) and other applicable BMPs and Guidelines (Appendix J) will be applied as BMPs or Guidelines for locatable minerals, subject to valid existing rights and the mining laws. Non-energy leasable minerals and salable minerals will be closed except for the following exception: PHMA are closed to new mineral material sales. However, these areas remain "open" to free use permits and the expansion of existing active pits, only if the following criteria are met: The activity is within the BSU and project area disturbance cap; the activity is subject to the provisions set forth in the mitigation measures (Appendix F) BMPs and Guidelines (Appendix J), and RDFs for Greater Sage-Grouse Habitat (Appendix C) are applied, and the activity is permissible under the subregional screening criteria.	Completely Revised
Required Design Features: RDFs are required for certain activities in all GRSG habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) or may require slight variations (e.g., a larger or smaller protective area). All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project or activity: A specific RDF is documented to not be applicable to the site-specific conditions of the project or activity (e.g., due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable. An alternative RDF, a state-implemented conservation measure or plan-level protection is determined to provide equal or better protection for GRSG or its habitat. A specific RDF would provide no additional protection to GRSG or its habitat.	Completely Revised

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Where the federal government owns the mineral estate in PHMA and GHMA, and the surface is in non- federal ownership, the federal government will apply the same stipulations, Conditions of Approval (COAs), and/or conservation measures and mineral RDFs if the mineral estate is developed on BLM- administered lands in that management area, to the maximum extent permissible under existing authorities, and in coordination with the landowner.	Partially Revised - revised to clarify HMA language
Where the federal government owns the surface and the mineral estate is in non-federal ownership in PHMA and GHMA, the federal government will apply appropriate surface use COAs, stipulations, and mineral RDFs through ROW grants or other surface management instruments, to the maximum extent permissible under existing authorities, in coordination with the mineral estate owner/lessee.	Partially Revised - revised to clarify HMA language
At the time an application for a new coal lease or lease modification is submitted to the BLM, the BLM will determine whether the lease application area is "unsuitable" for all or certain coal mining methods pursuant to 43 CFR, Part 3461.5. PHMA is essential habitat for maintaining GRSG for purposes of the suitability criteria set forth at 43 CFR, Part 3461.5(o)(1).	Completely Revised
MD-23 Grazing Permits and Leases: At the time a permittee or lessee voluntarily relinquishes a permit or lease, the BLM will consider whether the public lands where that permitted use was authorized should remain available for livestock grazing or be used for other resource management objectives, such as reserve common allotments (RCA) or fire breaks. This does not apply to or impact grazing preference transfers, which are addressed in 43 CFR, Part 4110.2-3.	Removed
MD-24 Other Resources Uses: Other resource uses within PHMA may be allowed pending project level environmental review provided that Mitigation, BMPs Guidelines, standard operating procedures (SOP), and RDFs are implemented, Impacts are evaluated as described in the GRSG Effects Analysis Process (Appendix I) and the project does not exceed the disturbance cap (Appendix E) and the goals for sage-grouse and sage-grouse habitat are not compromised. Categorical Exclusions (CXs) including those under the Energy Policy Act of 2005, Section 390 will not be used in priority sage-grouse habitats due to resource conflicts.	Completely Revised
MD-25 Renewable Energy ROWs: PHMA will be exclusion areas. Other types of ROWs: PHMA will be avoidance areas. Winter range is an exclusion areas for renewable energy ROWs.	Completely Revised

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MD-26 General ROWs: PHMA are defined as avoidance areas for all General ROWs (major and minor). Renewable ROWs are addressed in MD-25 above. Sage-Grouse winter range is treated the same in PHMA and GHMA: These areas are avoidance areas for general ROWs. If a proposed project cannot be avoided, the following actions will apply: Within PHMA all new power and utility lines (overhead lines) that can be safely buried will be buried. When burial of power lines is not possible, above ground lines will be located and designed to minimize impacts of predation, collision and other associated stressors to sage-grouse. Existing overhead lines within PHMA and within sage-grouse winter range will be evaluated for threats to sage-grouse and if necessary, modified to reduce the threat. If modification is not likely to be effective, the overhead line may be relocated. Any requirements for modification or relocation of existing overhead lines will be subject to valid existing rights.	Completely Revised
Consider the likelihood of development of not-yet-constructed surface-disturbing activities – as defined in Table 2 of the Monitoring Framework (Appendix D)−under valid existing rights prior to authorizing new projects in PHMA.	Partially revised – Updated monitoring framework
MD-27 Lands and Realty: PHMA and GHMA within the Center of the Nation will be Class 2 land retention areas (Appendix A2, Map E and Figure 1-3). Any land disposals will be limited and subject to specialist review. Refer to the Land Tenure subsection of the Lands section of this table for additional details about Class 2 retention criteria. BLM could also dispose of land in PHMA and GHMA within the Center of the Nation areas in cases where there is mixed ownership, and land exchanges will allow for additional or more contiguous federal ownership patterns. Under sage-grouse habitat areas with minority federal ownership, BLM will develop an additional, effective mitigation agreement for any disposal of federal land. As a final preservation measure, consideration will be given to pursuing a permanent conservation easement. Lands classified as PHMA and GHMA for GRSG will be retained in federal management unless: (1) the agency can demonstrate that disposal of the lands, including land exchanges, will provide a net conservation gain to the GRSG or (2) the agency can demonstrate that the disposal, including land exchanges, of the lands will have no direct or indirect adverse impact on conservation of the GRSG. The agency can demonstrate that disposal of the lands will provide a net conservation gain to Greater Sage-Grouse; or the agency can demonstrate that the disposal of the lands will have no direct or indirect adverse impact on conservation of Greater Sage-Grouse.	No change (same as 2015)
MD-28 Weed Treatments: TL: Spot weed treatments only, using IPM methods within all suitable nesting or brood rearing habitat of known sage-grouse leks from March 1-June 30.	No change (same as 2015)

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MD-29 Surface Disturbance and Disruptive Activities and Fluid Minerals in Winter Range: Winter range in PHMA will be treated the same as winter range in GHMA: Surface disturbing and disruptive activities will not be allowed in winter range for sage-grouse unless the project proponent can clearly demonstrate that the impacts can be adequately mitigated, conservation actions or needed design features are included and the goals of this plan are not compromised. Prior to approving any surface disturbance and disruptive activities, the project proponent will be required to provide a plan approved by BLM to maintain suitability of habitat and avoid or minimize habitat loss and disturbance.	Completely Revised
Fluid Minerals - NSO: Sage-grouse winter range will be managed as a NSO for oil and gas development and exploration. Waivers or modifications to a fluid minerals lease no-surface-occupancy stipulation will not be granted for NSO stipulations in PHMA.	Completely Revised
MD-30 Rights of Ways (ROWs): Winter range in PHMA will be treated the same as winter range in GHMA: Renewable Energy ROWs in sage-grouse winter range will be an exclusion area. Other types of ROWs in sage-grouse winter range will be an avoidance area. In cases where avoidance is not possible, BLM may require co-location of new ROWs with existing ROWs where possible. ROWs are defined for sage-grouse management in terms of major and minor ROWs. Major ROWs include transmission lines 100kV and greater and pipelines 24 inches in width and greater. Minor ROWs include utilities under these design descriptions, as well as communication sites and towers. Greater Sage-Grouse PHMA are avoidance areas for major and minor ROWs. Within GHMA, major ROWs are avoidance and minor ROWs are avoidance within two miles of leks with GHMA. The rest of the GHMA is open to minor ROWs. Sage-Grouse winter range is treated the same in PHMA and GHMA: These areas are avoidance areas for general ROWs and exclusion areas for renewable energy ROWs.	Completely Revised
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language in MD-31. This MD was deleted and replaced with the text below.] The habitat objectives for GRSG (Table 2-5) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site.	Completely Revised – Table 2-5 removed, see Appendix 8 for habitat indicators

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The seasonal habitat descriptions in Table 2-5 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	*(see above)*
MD-32 Land Health Standards: BLM will prioritize grazing leases in PHMA to determine if modifications are necessary prior to renewals or if the allotment does not meet Land Health Standards.	Completely Revised

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MD-33 Prescribed Fire: Prescribed fire may be allowed in PHMA and general habitat if it is done solely for the purposes of improving or maintaining sage-grouse habitat. If prescribed fire is used in Greater Sage-Grouse habitat, the NEPA analysis for the Burn Plan will address the following: • Why alternative techniques were not selected as a viable options; • How Greater Sage-Grouse goals and objectives would be met by its use; • How the COT report objectives would be addressed and met; • Develop a risk assessment to address how potential threats to Greater Sage-Grouse habitat would be minimized. Prescribed fire as a vegetation or fuels treatment shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Prescribed fire could be used to meet specific fuels objectives that would protect Greater Sage-Grouse habitat in PHMA (e.g., creation of fuel breaks that would disrupt the fuel continuity across the landscape in stands where annual invasive grasses are a minor component in the understory, and burning slash piles from conifer reduction treatments, used as a component with other treatment methods to combat annual grasses and restore native plant communities). Prescribed fire in known winter range shall only be considered after the NEPA analysis for the Burn Plan has addressed the four bullets outlined above. Any prescribed fire in winter habitat would be designed to strategically reduce wildfire risk around and/or in the winter range and designed to protect winter range habitat quality. Secretarial order SO3336 will be applied to protect GRSG habitat from fire: http://www.forestsandrangelands.gov/rangeland/index.shtml.	Partially Revised - revised to clarify
MD-34 Grazing Permits/Leases: The NEPA analysis for renewals and modifications of livestock grazing permits/leases within PHMA will include specific management thresholds based on GRSG Habitat Objectives Table and Land Health Standards (43 CFR, Part 4180.2) and ecological site potential and one or more defined responses that will allow the authorizing officer to make adjustments to livestock grazing that have already been subjected to NEPA analysis.	Completely Revised
MD 35 – Grazing Allotments: Allotments within PHMA, focusing on those containing riparian areas, including wet meadows, will be prioritized for field checks to help ensure compliance with the terms and conditions of the grazing permits. Field checks could include monitoring for actual use, utilization, and use supervision.	Completely Revised
MD 36 – Review and prioritization of Grazing Leases/Permits: The BLM will prioritize (1) the review of grazing permits/leases, in particular to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in PHMA. In setting workload priorities, precedence will be given to existing permits/leases in these areas not meeting Land Health Standards, with focus on those containing riparian areas, including wet meadows. The BLM may use other criteria for prioritization to respond to urgent natural resource concerns (ex., fire) and legal obligations.	Completely Revised
MD-37: Range Improvements: Range improvements in PHMA would be allowed if the improvements would not impact GRSG, improvements would provide a conservation benefit to GRSG such as fences for protecting important seasonal habitats, or if improvements would meet the lek buffer requirement. Refer to Appendix B for a discussion about GRSG lek buffers.	Completely Revised

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MD-38 Recreation: In PHMA, BLM will not construct new recreation facilities (e.g., campgrounds, trails, trailheads, staging areas) unless the development would have a net conservation gain to GRSG habitat (such as concentrating recreation, diverting use away from critical areas, etc.), or unless the development is required for visitor health and safety or resource protection.	Partially Revised - see mitigation and SSS sections
MD-39: Travel: Temporary travel closures will be considered in accordance with 43 CFR subpart 8364 (Closures and Restrictions); 43 CFR subpart 8351 (Designated National Area); 43 CFR subpart 6302 (Use of Wilderness Areas, Prohibited Acts, and Penalties); and 43 CFR subpart 8341 (Conditions of Use). Temporary closure or restriction orders under these authorities are enacted at the discretion of the AO to resolve management conflicts and protect persons, property, and public lands and resources.	No change (same as 2015)
Where an AO determines that OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures are implemented to prevent recurrence (43 CFR, Part 8341.2).	No change (same as 2015)
A closure or restriction order will be considered only after other management strategies and alternatives have been explored. The duration of temporary closure or restriction orders will be limited to 24 months or less; however, certain situations may require longer closures and/or iterative temporary closures. This may include closure of routes or areas.	No change (same as 2015)

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Habitat Objectives	
[Plan Maintenance Action in 2018 (February 2, 2018) clarified the use and application of the habitat objectives. Updated the language in MD-31 and here in the Habitat Objectives section. Most of this section was deleted and replaced with the text below.] The habitat objectives for GRSG (Table 2-5) is a list of indicators, characteristics, and values that describe GRSG seasonal habitat use areas. The BLM used indicator values derived from a synthesis of local and regional GRSG habitat research and data to describe the typical vegetation communities that sage-grouse select. While the habitat objectives are not attainable on every site or every acre within designated GRSG habitat management areas, the values reflect a range of habitat conditions that generally lead to greater survival of individuals within a population. When permitting land use activities, BLM should consider the ecological site potential within designated habitat management areas to validate the habitat conditions achievable for a specific site. The seasonal habitat descriptions in Table 2-5 vary across the range of sage-grouse, within a subregion, and between sites. They are not land health standards but are quantitative measures that inform the Special Status Species Habitat Land Health Standard for sage-grouse. These measurable values reflect ecological potential, and may be adjusted based on local factors influencing sage-grouse habitat selection. Local data or recent science may indicate that sage-grouse select for vegetation structure and composition in seasonal habitats not characterized by the values in the habitat objectives table. In these cases, it may be appropriate to adjust the values. Habitat objectives should be evaluated in the context of annual variability in ecological conditions and should not be used singly to determine habitat suitability for sagegrouse. They may be used to demonstrate trends over time, during plan evaluations for effectiveness of sage-grouse conservation, or when identify limiting habitat characteristics for a given area. The indicators, characteristics, values and desired seasonal habitat conditions in the GRSG Plan Habitat Objectives Table are meant to inform the wildlife habitat component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2), but do not replace rangeland health assessments. Results from the LHS evaluation should be used to support BLM in land use authorization processes and during development of objectives for management actions such as vegetation treatments. BLM land use authorizations will contain terms and conditions regarding the actions needed to achieve or make progress toward achieving habitat objectives and land health standards. The Habitat Objectives Tables are to be used: • To assess habitat suitability for sage-grouse following the BLM policy on sage-grouse habitat assessments • To evaluate land use plan effectiveness for sage-grouse conservation, and • As a basis to develop measurable project objectives for actions in BLM-designated GRSG Habitat Management areas when considered alongside land health standards, ecological potential and local information.	Completely Revised - Table 2-5 removed, indicators now in Appendix 4.

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In all PHMA, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush canopy cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).	No change (same as 2015)
Adaptive Management Strategy for Greater Sage-Grouse Habitat Management	
Adaptive Management is a decision process that promotes flexible resource management decision- making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps with adjusting resource management directions as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. On February 1, 2008, the USDI published its Adaptive Management Implementation Policy (522 DM 1). The adaptive management strategy presented within this EIS complies with this policy and direction. The GRSG Monitoring Framework will be used to inform adaptive management; the GRSG Monitoring Framework can be found in Appendix D. The following provides the BLM adaptive management strategy for the South Dakota ARMP.	Completely Revised
Adaptive Management and Monitoring	
This EIS contains a monitoring framework plan (Appendix D) that includes an effectiveness monitoring component. The agencies intend to use the data collected from the effectiveness monitoring to identify any changes in habitat conditions related to the goals and objectives of the plan and other range-wide conservation strategies BLM 2004; Stiver et al. 2006; USFWS 2013). The information collected through the Monitoring Framework Plan (Appendix D) will be used by the BLM to determine when adaptive management hard and soft triggers (discussed below) are met. Adaptive management responses at the RMP level were included as part of the assumptions when impacts were analyzed in Chapter 4 of the Proposed RMP. In making amendments to this plan, the BLM will coordinate with the FWS as BLM continues to meet its objective of conserving, enhancing and restoring GRSG habitat by reducing, minimizing or eliminating threats to that habitat. The GRSG adaptive management plan provides a means of addressing and responding to unintended negative impacts on GRSG and its habitat before consequences become severe or irreversible.	Completely Revised
The hard and soft trigger data will be analyzed as soon as it becomes available after the signing of the ROD and then at a minimum, analyzed annually thereafter.	Completely Revised
Adaptive Management Triggers	
Adaptive management triggers are essential for identifying when potential management changes are needed in order to continue meeting Greater Sage-Grouse conservation objectives. The BLM will use soft and hard triggers.	Completely Revised

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Soft Triggers	
Soft triggers are indicators that management or specific activities may not be achieving the intended results of conservation actions. The soft trigger is any negative deviation from normal trends in habitat or population in any given year, or if observed across two to three consecutive years. Metrics include, but are not limited to, annual lek counts, wing counts, aerial surveys, habitat monitoring, and Density and Disturbance Calculation Tool (DDCT) evaluations. BLM field offices, local SDGFP offices, and sage-grouse working groups will evaluate the metrics. The purpose of these strategies is to address localized Greater Sage-Grouse population and habitat changes by providing the framework in which management will change if monitoring identifies negative population trends and habitat anomalies.	Completely Revised
Each major project (EIS level) will include adaptive management strategies in support of the population management objectives for Greater Sage-Grouse set by the State of South Dakota, and will be consistent with this Greater Sage-Grouse Adaptive Management Plan. These adaptive management strategies will be developed in partnership with the State of South Dakota, project proponents, partners, and stakeholders, incorporating the best available science.	Completely Revised
Soft Triggers Response	
Soft triggers require immediate monitoring and surveillance to determine causal factors and may require curtailment of activities in the short or long term, as allowed by law. The project-level adaptive management strategies will identify appropriate responses where the project's activities are identified as the causal factor. The management agency and the adaptive management group will implement an appropriate response strategy to address causal factors not addressed by specific project adaptive management strategies, not attributable to a specific project, or to make adjustments at a larger regional or state-wide level.	Completely Revised
Hard Triggers	
Hard triggers are indicators that management is not achieving desired conservation results. Hard triggers would be considered a catastrophic indicator that the species is not responding to conservation actions, or that a larger-scale impact is having a negative effect. Hard triggers are focused on three metrics: 1) number of active leks, 2) acres of available habitat, and 3) population trends based on annual lek counts. Within the context of normal population variables, hard triggers shall be determined to take effect when two of the three metrics exceeds 60% of normal variability for the BSU in a single year, or when any of the three metrics exceeds 40% of normal variability for a three-year time period within a five-year range of analysis. A minimum of three years is used to determine trends, with a five-year period preferred to allow determination of three actual time periods (i.e., Y1-2-3, Y2-3-4, Y3-4-5). Baseline population estimates are established by pre-disturbance surveys, reference surveys, and account for regional and statewide trends in population levels. Population count data in South Dakota are maintained by SDGFP. Estimates of population are determined based upon survey protocols determined by SDGFP, and are implemented consistently throughout the state. Population counts are tracked for individual leks and are then summarized by county and for the state.	Completely Revised

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Hard Trigger Response	
Hard triggers represent a threshold indicating that immediate action is necessary to stop a severe deviation from Greater Sage-Grouse conservation objectives set forth in the BLM plans. As such, the ARMP includes a "hard-wired" plan-level response; that is, it provides that, upon reaching the trigger, a more restrictive alternative, or an appropriate component of a more restrictive alternative analyzed in the Proposed RMP and Final EIS, will be implemented without further action by the BLM. Specific "hard- wired" changes in management are identified in Table 2-7, Specific Management Responses, below. In addition to the specific changes identified in Table 2-7, the BLM will review available and pertinent data, in coordination with Greater Sage-Grouse biologists and managers from multiple agencies, including the USFWS, NRCS, and the State of South Dakota, to determine the causal factor(s) and implement a corrective strategy. The corrective strategy would include the changes identified in Table 2-7 and could also include the need to amend or revise the ARMP to address the situation and modify management accordingly.	Completely Revised
Upon determination that a hard trigger has been tripped, the BLM will immediately defer issuance of discretionary authorizations for new actions within the BSU for a period of 90 days. When a hard trigger is hit in a BSU, including those that cross state lines, the WAFWA Management Zone Greater Sage-Grouse Conservation Team will convene to determine the casual factor(s), put project level responses in place, as appropriate, and discuss further appropriate actions to be applied.	Completely Revised
In addition to implementing the hard wired plan-level response, in the event that new scientific information becomes available demonstrating that the hard-wired response would be insufficient to stop a severe deviation from sage-grouse conservation objectives set forth in the BLM plans, the BLM will immediately implement a formal directive to protect GRSG and its habitat and to ensure that conservation options are not foreclosed. To the extent that it is supported scientifically, this formal directive will be drawn from the range of alternatives analyzed in the RMP Amendments/Revisions.	Completely Revised
Mitigation for Sage-Grouse Management	
Consistent with the Plan's goal, the intent of the South Dakota ARMP is to provide a net conservation gain to the species. In all sage-grouse habitat, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in sage-grouse habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions.	Completely Revised
Actions that result in habitat loss and degradation including those identified as threats which contribute to Greater Sage-Grouse disturbance as identified by the USFWS in its 2010 listing decision (75 FR 13910) and shown in Table 2 in the attached Monitoring Framework (Appendix D). This is also consistent with BLM Manual 6840 – Special Status Species Management, Section .02B, which directs BLM "to initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of the need for listing of these species under the ESA."	Completely Revised

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Mitigation Standards. In undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing-third party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. This will be achieved by avoiding, minimizing, and compensating for impacts by applying beneficial mitigation actions. Mitigation will follow the regulations from the CEQ (40 CFR, Part 1508.20; e.g., avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM management actions and authorized third-party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species. Any compensatory mitigation will be durable, timely, and in addition to that which would have resulted without the compensatory mitigation.	Completely Revised
Greater Sage-Grouse Conservation Team. The BLM will establish a WAFWA Management Zone Greater Sage-Grouse Conservation Team (hereafter, Team) to help guide the conservation of Greater Sage- Grouse, within 90 days of the issuance of the ROD. This Team will develop a WAFWA Management Zone Regional Mitigation Strategy (hereafter, Regional Mitigation Strategy). The Team will also compile and report on monitoring data (including data on habitat condition, population trends, and mitigation effectiveness) from States across the WAFWA Management Zone (see Monitoring section). Subsequently, the Team will use these data to either modify the appropriate Regional Mitigation Strategy or recommend adaptive management actions (see Adaptive Management section). The BLM will invite governmental and Tribal partners to participate in this Team, including the SDGFP and USFWS, in compliance with the exemptions provided for committees defined in the Federal Advisory Committee Act and the regulations that implement that act. The BLM will strive for a collaborative and unified approach between Federal agencies, Tribal governments, state and local government(s), and other stakeholders for Greater Sage-Grouse conservation. The Team will provide advice, and will not make any decisions that impact Federal lands. The BLM will remain responsible for making decisions that affect Federal lands.	Completely Revised

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Developing a Regional Mitigation Strategy. The Team will develop a Regional Mitigation Strategy to inform the mitigation components of NEPA analyses for BLM management actions and third-party actions that result in habitat loss and degradation. The Strategy will be developed within one year of the issuance of the ROD. The BLM's Regional Mitigation Manual MS-1794 will serve as a framework for developing the Regional Mitigation Strategy. The Regional Mitigation Strategy will be applicable to the States/Field Offices within the WAFWA Management Zone's boundaries. Regional mitigation is a landscape-scale approach to mitigating impacts on resources. This involves anticipating future mitigation needs and strategically identifying mitigation sites and measures that can provide a net conservation gain to the species. The Regional Mitigation Strategy developed by the Team will elaborate on the components identified above (i.e., avoidance, minimization, and compensation; additionality, timeliness, and durability). In the time period before the Strategy is developed, BLM will consider regional conditions, trends, and sites, to the greatest extent possible, when applying the mitigation hierarchy and will ensure that mitigation is consistent with the standards set forth in the first paragraph of this section.	Completely Revised
Incorporating the Regional Mitigation Strategy into NEPA Analyses. The BLM will include the avoidance, minimization, and compensatory recommendations from the Regional Mitigation Strategy in one or more of the NEPA analysis' alternatives for BLM management actions and third-party actions that result in habitat loss and degradation, and the appropriate mitigation actions will be carried forward into the decision.	Completely Revised
Implementing a Compensatory Mitigation Program. Consistent with the principles identified above, the BLM needs to ensure that compensatory mitigation is strategically implemented to provide a net conservation gain to the species, as identified in the Regional Mitigation Strategy. To align with existing compensatory mitigation efforts, this compensatory mitigation program will be implemented at a State level (as opposed to a WAFWA Management Zone, a Field Office, or a Forest), in collaboration with our partners (e.g., Federal, Tribal, and State agencies). To ensure transparent and effective management of the compensatory mitigation funds, the BLM will enter into a contract or agreement with a third-party to help manage the State-level compensatory mitigation funds, within one year of the issuance of the ROD. The selection of the third-party compensatory mitigation administrator will conform to all relevant laws, regulations, and policies. The BLM will remain responsible for making decisions that affect Federal lands. Information on BMPs, Guidelines and SOPs can be found in Appendix J. RDFs are described in Appendix C.	Completely Revised

GRSG Management from South Dakota RMP	2025 BLM GRSG Approved RMP Amendment
Monitoring Framework for Greater Sage-Grouse Habitat Management	
The BLM's planning regulations, specifically 43 CFR, Part 1610.4-9, require that land use plans establish intervals and standards for monitoring based on the sensitivity of the resource decisions. Land use plan monitoring is the process of tracking the implementation of land use plan decisions (implementation monitoring) and collecting data/information necessary to evaluate the effectiveness of land use plan decisions (effectiveness monitoring). For GRSG, these types of monitoring are also described in the criteria found in the Policy for Evaluation of Conservation Efforts When Making Listing Decisions (50 CFR Vol. 68, No. 60). One of the Policy for Evaluation of Conservation Efforts When Making Listing Decisions criteria evaluates whether provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided. The Monitoring Framework is located in Appendix D.	Completely Revised

2.9.1 Relevant Appendices

The following table shows which appendices from the 2015 plan amendment have management direction that may change through the Approved RMPA. The appendices can be found on the South Dakota RMP ePlanning website.

Appendix Name	2025 BLM GRSG Approved RMP Amendment
A: Approved RMP Amendment Maps	Completely Revised – See new maps in Appendix 1
B: Applying GRSG Lek Buffer-Distances When Approving Decisions	Completely Revised
C: GRSG Required Design Features	Partially updated
D: GRSG Monitoring Framework	Completely revised – see new management direction
E: GRSG Disturbance Caps	Removed
F: GRSG Regional Mitigation Strategy	Removed
G: Fluid Mineral Stipulations	Partially revised – GRSG stipulations changed, see Appendix 6
I: Greater Sage-Grouse Effects Analysis Process	Removed
J: Summary of Mitigation Measures, Best Management Practices (BMPs), Standards, Guidelines, and Standard Operating Procedures (SOPs)	Partially revised – new direction (livestock grazing BMPs)
K: South Dakota Field Office Soil, Water and Reclamation Mitigation Guidelines	No change (same as 2015)
L: South Dakota Field Office Reclamation Guidelines and Abandoned Mine Actions	No change (same as 2015)
M: South Dakota Field Office Grazing Allotment Allocations	No change (same as 2015)
N: Land Ownership Adjustment Criteria	No change (same as 2015)
O: Soil Monitoring	No change (same as 2015)
P: Cultural Resource Stipulation for Grazing Leases	No change (same as 2015)
Q: South Dakota Field Office Air Resource Management Plan: Adaptive Management Strategy for Oil and Gas Resources	No change (same as 2015)
R: Rights-of-Way and Renewable Energy Avoidance or Exclusion Areas	No change (same as 2015)
S: Summary of Restrictions Table	No change (same as 2015)

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Appendix 3

Greater Sage-grouse Monitoring Framework

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Appendix 3. Greater Sage-grouse Monitoring Framework

3.1 FORWARD

The revised Bureau of Land Management (BLM) Greater Sage-Grouse (GRSG) Monitoring Framework was developed after five years of implementing the 2015 BLM and United States Forest Service (USFS) GRSG Monitoring Framework which culminated in the 2020 Greater Sage-Grouse Five-year Monitoring Report. Since implementing the monitoring efforts described in the original Monitoring Framework, new data has become available and new approaches to analyzing these data have been developed. This update maintains the existing measures included in the original document and expands upon them to include this new science. Measures for monitoring are identified at two scales: the rangewide scale and land use plan (LUP) scale. The former will provide insight into habitat conditions and BLM management actions across jurisdictional boundaries which will, in turn, provide context to the smaller scale LUP monitoring described herein. For each scale of monitoring a suite of 6 measures are identified and a methodology which the BLM will utilize to collect information informing each measure is described. Importantly, specific datasets and analysis approaches may be modified through the implementation of this monitoring framework so that BLM can adapt to new information as it becomes available. The data collected and analyzed for each of the measures described at both scales will vary in spatial extent. For example, measures leveraging remotely sensed data can and will be examined across all habitat management areas (HMAs) within the planning area as well as the BLM managed subset of these habitats. Other measures will apply specifically to BLM managed habitats or subsets thereof (i.e. disturbance and density caps). Further, LUP decisions may identify specific spatial extents at which some measures are analyzed and tracked, such as to inform adaptive management threshold status. As such, during the implementation of this monitoring framework, the spatial extent of all monitoring and analyses addressing the identified measures will be documented and communicated during effectiveness evaluation efforts.

This Monitoring Framework is related to several other pieces of larger LUPs and associated management direction they provide. The GRSG Monitoring Framework leverages data, information, and assessments to monitor LUP implementation. Appendix 4 of this LUP establishes GRSG habitat objectives, indicators, and benchmarks. These indicators and benchmarks are utilized in the Habitat Assessment Framework (HAF). The results of these habitat assessments inform the wildlife and/or sensitive species component of the Land Health Standards (LHS) evaluation process (43 CFR 4180.2). The GRSG Monitoring Framework provides a consistent format for reporting if the LUP objectives are being met or making progress to being met, based on the results of these assessment and planning tools.

Table 3-1. Relationships of LUPs, HAF, LHS, and Monitoring Framework

LUP	GRSG HAF	LHS Evaluation	GRSG Monitoring Framework
Sets GRSG habitat objective(s) and identifies the GRSG habitat indicators and benchmarks from best available science for evaluating progress toward meeting the objective.	Provides methods to assess GRSG habitats at multiple scales, using the indicators and benchmarks from the applicable LUP Habitat Indicators appendix.	Evaluates if the sage-grouse portion of the Special Status Species/Wildlife Habitat (SSS/WL) LHS is achieved or significant progress towards achievement is made. These evaluations utilize HAF results along with other data.	Provides framework for reporting progress toward achieving the objective(s) of the LUP, including habitat suitability.

3.2 SECTION I: RANGEWIDE MONITORING

3.2.1 Introduction

This rangewide monitoring section of the BLM Revised GRSG Monitoring Framework is an update from the original BLM and USFS GRSG Monitoring Framework (2015) expands and clarifies the BLM's GRSG rangewide habitat condition monitoring and reporting. Described here are the six measures (**Table 3-2**), and associated updated methodologies, incorporating the original monitoring measures from 2015 (habitat condition and habitat degradation) with additional measures (land cover, habitat indicators, habitat suitability and population trend) that guide the BLM's GRSG monitoring and reporting.

The information gathered from monitoring and reporting on the six rangewide measures (**Table 3-2**) is intended to inform an evaluation of BLM's effectiveness (Section III of this BLM Revised GRSG Monitoring Framework) toward meeting the BLM's overarching goal for GRSG: *to conserve and manage GRSG habitats to support persistent, healthy populations, consistent with BLM's sensitive species policy and in cooperation with other conservation partners. Conservation and management should maintain existing connectivity between GRSG populations.*

Table 3-2. The Six Rangewide Monitoring Measures, Associated Sub-Measures, Monitoring Questions and Data Sources for BLM Monitoring of GRSG Habitat Conditions and Population Trends

Measures	Monitoring Questions	Data
Measure 1: Vegetation Availability and Condition		
Measure 1a: Vegetation Condition and trend	What is the status and trend of the habitat indicators describing habitat characteristics important to GRSG as well as ecological threats to GRSG (e.g., annual invasive grasses, bare ground) on BLM lands?	BLM Assessment, Inventory, and Monitoring (AIM)
Measure 1b: Current and Historical Amounts of Sagebrush	What is the current versus historical extent of sagebrush within GRSG habitat? How have recent disturbances (fires and treatments) affected the extent of sagebrush?	LANDFIRE
Measure 1c: Percent Sagebrush Cover and Trend	What is the percent cover of sagebrush and trend in sagebrush percent cover?	Rangeland Condition Monitoring Assessment and Projection (RCMAP)
Measure 1d: Percent Annual Herbaceous Cover and Trend	What is the percent cover and trend of annual herbaceous cover?	RCMAP

Measures	Monitoring Questions	Data
Measure 1e: Percent Tree Cover within Sagebrush	What is the percent cover and trend of tree cover in sagebrush communities?	RCMAP
Measure 2: Habitat Degradation and Development Intensity in GRSG Habitat		
Measure 2a: Habitat degradation	What is the estimated amount of habitat degradation rangewide and the estimated change in the amount?	Geospatial analysis using datasets representing anthropogenic development
Measure 2b: Intensity of degradation	What is the estimated density of energy development activities and the change in the estimated density?	Geospatial analysis using datasets representing anthropogenic development
Measure 2c: Degradation cap compliance	Were any disturbance or density caps above project scale exceeded?	Geospatial analysis using datasets representing anthropogenic development
Measure 2d: Reclamation	What is the amount of reclaimed energy-related degradation on BLM lands and the change in the amount?	Geospatial analysis using datasets representing reclamation on BLM-managed lands
Measure 3: GRSG Habitat Suitability		
Measure 3a: Habitat assessment status	What is the status of GRSG habitat assessments at the mid- and fine-scales across the range?	BLM's HAF tracking system
Measure 3b: Habitat suitability at mid and fine scales	What is the suitability of GRSG habitats at mid and fine spatial scales across the range?	BLM's HAF tracking system
Measure 4: Achievement of LHS in GRSG Habitat		
Measure 4a: Status of land health evaluations	How many acres were evaluated for achievement of the SSS/WL LHS in GRSG habitat across the range?	BLM's LHS Database
Measure 4b: Status of LHS	For areas that have been evaluated in GRSG habitat, what is the status of land health and what are the causes of non-achievement (as applicable)?	BLM's LHS Database
Measure 5: BLM On-The-Ground Conservation and Restoration Efforts for GRSG		
Measure 5a: Summary of conservation efforts	How many acres/miles were conserved or restored by treatment or action type in GRSG habitat across the range?	National Fire Plan Operations and Reporting System/Vegetation Management Action Portal, Other BLM Project Tracking
Measure 6: GRSG Population Trend Rangewide		
Measure 6a: Annual Range-wide Trend	What is the rangewide average annual population trend?	United States Geological Survey (USGS) Rangewide Population Trend Analysis for GRSG
Measure 6b: Cumulative Range-wide Trend	What is the rangewide cumulative population trend?	USGS Rangewide Population Trend Analysis for GRSG

3.2.2 Methods

The datasets used, and the land ownerships included in the data, vary by monitoring type. For example, the monitoring of habitat indicators uses on-the-ground data and information from BLM lands only. Conversely, the rangewide monitoring of landcover, sagebrush availability and disturbance use geospatial data covering all land ownerships. The population trend monitoring uses state wildlife agencies' data that also covers all land ownership in GRSG habitat. Best available datasets outlined here will be used to analyze the monitoring measures and for reporting on GRSG habitat however BLM reserves the right to change data and analysis methods as it deems appropriate.

Measure 1. Vegetation Availability and Condition

Sagebrush availability and vegetation condition analyses are analyzed rangewide for GRSG, excluding the Bi-State Distinct Population Segment and the Columbia Basin population. Analyses differ in the timeframe and type of data used (remotely sensed products versus collected on the ground), the lands to which the analyses apply (all lands versus BLM-managed lands), and in GRSG habitat.

Datasets selected for monitoring must meet key criteria to ensure consistent and accurate monitoring:

- The dataset must be consistent rangewide
- There must be a known accuracy level or level of confidence for the dataset
- The dataset must be based in peer-reviewed science
- The dataset must be maintained and have a known update plan
- The dataset must be readily available
- Consistent methodology must have been used to derive datasets that are compared; different datasets may be used to calculate different measures.

The following datasets, which meet the key criteria, should be analyzed for Measure 1; however, additional data and analyses may also be considered, if justified and documented:

1. BLM AIM for 1a,
2. LANDFIRE (Picotte et al. 2016) for 1b and
3. RCMAP (Rigge et al. 2022) for 1c, 1d, and 1e.

We considered three types of fractional datasets for calculating Measures 1c, 1d, and 1e. Fractional datasets contain pixels or cells that represent areas on the ground which may each contain vegetation cover types such as sagebrush, trees, or herbaceous. A fractional dataset represents the percentage of one vegetation cover type that is present in each pixel (e.g., 50 percent sagebrush, 25 percent trees, or 25 percent herbaceous). The three datasets considered, that are new since the 2015 BLM/USFS GRSG Monitoring Framework, are:

- Landscape Cover Analysis and Reporting Tools (LandCART; Zhou et al. 2020),
- Rangeland Analysis Program (RAP; Allred et al. 2021), and
- RCMAP.

Accuracies and applicability for the three types of datasets are similar but mixed. BLM Tech Note 456, which compares these datasets, recommends that users consider their individual data needs and uses when selecting from them (Savage et al. 2022). **Table 3-3** summarizes some characteristics of the datasets specifically considered for this BLM Revised GRSG Monitoring Framework and, although not comprehensive, reflects the intent to use RCMAP. RAP does not have a sagebrush dataset and it is currently difficult to obtain rangewide data from LandCART but improvements are in progress. Importantly, BLM partners with USGS to fund RCMAP, ensuring the reliability of readily available data, regular updates and maintenance, and data suited for use in this BLM Revised GRSG Monitoring Framework. See **Appendix B, Table B2** for the RCMAP Accuracy Assessment. We recommend using only one data type (for 1c, 1d, & 1e) such that data can be overlaid or compared without concern for different methods that created the data. If additional fractional datasets become available and fit the key criteria above, they may be considered for use in calculating the Measures 1c, 1d, and 1e.

Table 3-3. Dataset Characteristics For Measure 1c, 1d, And 1e

Dataset Characteristics	LandCART	RAP	RCMAP
Annual herbaceous	Y	Y	Y
Sagebrush	Y	N	Y
Tree cover	Y	Y	Y
Rangewide extent	Difficult	Y	Y
Trend	Y	User calculates	Y

Measure 1a: What is the status and trend of the habitat indicators and threats to GRSG (e.g., non-native invasive grasses, bare ground) on BLM lands?

The vegetation condition monitoring is based on estimates for 6 GRSG habitat indicators (e.g., sagebrush cover) and estimates of 7 threat indicators (e.g., invasive species) (Herrick et al. 2017). These estimates will be based on field data collected through the BLM's national monitoring efforts on BLM-managed rangeland ecosystems. These data are part of the AIM program including the National AIM Survey (also known as the Landscape Monitoring Framework, Yu Li et al. 2020 and generally described in Karl et al. 2016). The AIM estimates provide consistent and standardized data about vegetation conditions broadly across the range.

The 6 GRSG habitat indicators are:

1. Percent cover of sagebrush
2. Mean sagebrush species height
3. Proportion of sagebrush that is spreading shaped
4. Percent cover of perennial grasses and perennial forbs
5. Mean herbaceous plant species height
6. Percent of lands where native plants make up 95 percent or more of vegetation cover

The 7 threat indicators are:

1. Proportion of sagebrush that is columnar shaped
2. Percent cover of bare ground
3. Proportion of nonnative invasive species present
4. Proportion where greater than or equal to 5 percent of foliar cover is comprised of nonnative invasive species

5. Proportion of vegetation composed of annual grasses
6. Proportion of vegetation composed of nonnative invasive plant species
7. Percent of lands with greater than 3 percent cover of pinion – juniper.

The vegetation condition summary is reported for BLM-managed GRSG habitats. Also of importance is that the data is collected in areas that retain rangeland vegetation and exclude areas physically converted to agriculture or disturbance from development.

The estimates combine indicator data from all sampling locations collected within a given year. An analysis for trend will be performed for each of these indicators. Analysis details will be included in monitoring reports.

Measure 1b: What is the current versus historical extent of sagebrush within the range of GRSG? How have recent disturbances affected the extent of sagebrush?

Measure 1b estimates both historic and current extent of sagebrush. The datasets to calculate these metrics are the most recent LANDFIRE Biophysical Setting (BpS), Existing Vegetation Type (EVT), Existing Vegetation Cover (EVC), and Existing Vegetation Height (EVH). EVT will be adjusted for recent fires and BpS will be adjusted for sagebrush areas in EVT (see below for details). LANDFIRE data meets the key criteria defined above and has ample thematic resolution with several different sagebrush vegetation classes. For the 2015 Monitoring Framework, vegetation classes from LANDFIRE EVT and BpS were selected to use in the sagebrush and sagebrush potential or historic layers by identifying the classes that include sagebrush species and that could provide suitable seasonal habitat for GRSG (See **Appendix A, Table A1**). In these classes, sagebrush may not be the dominant species, but it is an attempt to include the maximum likely geographic extent and some of the uncertainty on the ground captured by products derived from remotely sensed data (see **Appendix B, Table B1** for Agreement Assessment details). The sagebrush layer used for reporting will be created using these selected classes from EVT. The following two metrics will be reported for each year:

1) 1.b.1. The amount of sagebrush in GRSG habitat compared with the amount of sagebrush that GRSG habitat could historically support without disturbance, that is, the existing sagebrush versus the potential sagebrush. The measure will be calculated as [the existing area of sagebrush] divided by [the potential area of sagebrush expected pre-Euro American settlement]. The data will be summarized including a histogram, mean and standard deviation, and median and quartiles for GRSG habitat.
2) 1.b.2. Recent vegetation treatments (National Fire Plan Operations and Reporting System and Vegetation Management Action Portal data) are integrated into some LANDFIRE data causing changes in EVH and EVC datasets but these changes are not reflected in EVT for now, although this may change (personal communication Daryn Dockter, Brian Tolk, May 2023). BLM will use EVH and EVC with EVT to determine how recent treatments affect the extent of sagebrush using the guidelines:
    a. If EVT = sagebrush but EVH or EVC = 0 for shrubs, then disturbance has likely removed the sagebrush. These pixels will be removed from the EVT dataset annually.
    b. If EVT = sagebrush and EVH = grass less than 1.0 meter, past disturbance has likely removed the sagebrush and grass or forbs are growing. These pixels will be removed from the EVT dataset annually.
    c. If EVT = sagebrush and EVH = shrub 1 to 3 meters then there is likely sagebrush here. These pixels will be retained in the EVT dataset annually.

d. These changes will be summarized across GRSG habitat.

LANDFIRE EVT includes fires burned up to the end of the previous fiscal year so updates will be needed for more recent fires and can be made using NIFC WFIGS *yyyy*, Interagency Fire Perimeters to Date (where *yyyy* is the current year). LANDFIRE processes postfire change detection using satellite imagery and Monitoring Trends in Burn Severity program. See below for LANDFIRE data accuracy and update details.

In EVT there are small areas that show sagebrush and sagebrush associated classes which are not matched in the BpS dataset. Based on the assumption that sagebrush is unlikely to expand in the short term, we assume that BpS is in error and these classes in BpS need to be adjusted to the classes shown in EVT. This adjustment supports the simple division of existing by potential sagebrush that is described above.

Because of concerns over the thematic accuracy of individual classes mapped by LANDFIRE, all ecological systems listed in **Appendix A, Table A1** will be aggregated into three groups that represent sagebrush, sagebrush associated, and other vegetation types. With all ecological systems aggregated, the combined accuracy, measured as an agreement assessment, of the sagebrush base layer (EVT) will be much greater than if all categories were treated separately (LANDFIRE 2016 Remap EVT Agreement Assessment). We used the Southwest (Arizona, California, Nevada, Utah, west Colorado, and west New Mexico) and Northwest GeoAreas (Idaho, Montana, Oregon, Washington, and Wyoming) to estimate sagebrush assessment agreements where sagebrush, sagebrush associated, and other field data are assigned autokeys and these are compared to LANDFIRE EVT (**Appendix B, Table B1**). The Southwest GeoArea agreement assessments were 55 percent for sagebrush, and 50 percent for sagebrush associated. The Northwest GeoArea agreement assessments were 69 percent for sagebrush and 57 percent for sagebrush associated.

LANDFIRE maintains a substantial disturbance spatial database using agency and other data; refinements to the process were made in 2020 with plans to update annually. LANDFIRE also uses National Landcover Database (NLCD) roads and urban classes, the Monitoring Trends in Burn Severity program, Burned Area Reflectance Classification data, and Rapid Assessment of Vegetation Condition after Wildfire data to apply changes to the database on a yearly basis. LANDFIRE uses a change algorithm to account for fires and models postfire vegetation recovery. While LANDFIRE intends to update annually, refinements may still be made to the EVT data for more recent changes due to wildfire (see above) and anthropogenic disturbances such as agriculture and urban, using the processes and datasets recommended below.

LANDFIRE uses the NLCD (Fry et al. 2011) to make urban adjustments including imperviousness dataset; high, medium, and low development; roads; open space; and broad vegetation types. NLCD is prioritized over other datasets if there is a discrepancy in land cover. NLCD impervious data has a roads description including primary, secondary, and tertiary; two track roads are not included. NLCD obtains building footprints from Microsoft data and USGS processing. NLCD data are generated on a 5-year cycle and are specifically designed to support monitoring efforts but the lag in NLCD may limit LANDFIRE data. To determine agricultural areas and types, LANDFIRE uses the annually updated National Agricultural Statistics Service Cropland Data Layer. The LANDFIRE disturbance processing will also pick up agricultural expansion and treatments when they are reported.

Measure 1c: What is the percent cover of sagebrush and trend in sagebrush percent cover?
Sagebrush fractional cover data will be used to estimate the current proportion of sagebrush in GRSG habitat. The most recent RCMAP fractional sagebrush cover will be used to calculate this measure (Rigge et al. 2022).

For each year of monitoring, the statistical distribution of percent sagebrush cover will be calculated and reported including a histogram, mean and standard deviation, and median and quartiles at spatial scales relevant to BLM LUP decisions and management, for example, HAF fine-scale extents. If updated literature suggests levels of percent sagebrush cover that are more appropriate to GRSG, these thresholds will be applied in addition to the standards described above. For example, if less than the literature-specified threshold of sagebrush is determined to be unsuitable for GRSG across GRSG habitat, an assessment of the area of and distribution that is above and below this cover threshold will be conducted.

Shi et al. (2022) modeled time-series trends in RCMAP continuous vegetation using two methods: 1) linear regression and 2) breaks and stable states modeling. We recommend using the linear trends results because, while accuracy was similar between the two modeling versions, linear trend results are more easily interpreted (Shi et al. 2022). For each pixel in the linear trends data, the slope represents the average percent cover change and the p-value is the confidence in the change value for each year. Within GRSG habitat, the trend of sagebrush cover will be monitored using the time-series linear trends data from RCMAP for all years of data to calculate the summary statistics as described above.

Measure 1d: What is the percent cover and trend of annual herbaceous cover?

The most recent RCMAP Annual Herbaceous fractional data will be used to estimate the current area, distribution, and proportion of annual forbs and grasses in GRSG habitat. In the Western US, the RCMAP annual herbaceous dataset primarily represents annual invasive species such as Cheatgrass, Medusahead, Red Brome, and annual mustards (Multi-Resolution Land Characteristics Consortium RCMAP website, https://www.mrlc.gov/data/rcmap-annual-herbaceous-cover-1, accessed March 2023). At higher elevations and in California, the annual herbaceous cover dataset may also represent native annual herbaceous vegetation types (Multi-Resolution Land Characteristics Consortium RCMAP website, https://www.mrlc.gov/data/rcmap-annual-herbaceous-cover-1, accessed March 2023).

For each year of monitoring, the statistical distribution of percent annual herbaceous cover will be calculated including a histogram, the mean and standard deviation, and median and quartiles at spatial scales relevant to BLM LUP decisions and management, for example, at HAF fine-scale extents. If updated literature suggests levels of percent annual herbaceous cover that are more appropriate to GRSG, apply these thresholds in addition to the standards described above. For example, if less than the literature-specified threshold of annual herbaceous cover is determined to be unsuitable for GRSG across GRSG habitat, assessments of and distribution of annual herbaceous cover that is above and below this cover threshold will be conducted.

The trend of annual herbaceous cover will be reported for all years of data using the annual time-series linear trends data from RCMAP to calculate the summary statistics described above. The trend of annual herbaceous cover will be compared to the trend in sagebrush cover in GRSG habitat.

Measure 1e: What is the percent cover and trend of tree cover in sagebrush communities?

Over the past several decades, many studies have found that GRSG avoid habitat near conifers (Nisbet et al. 1983, Doherty et al. 2010; Fedy et al. 2014; Doherty et al. 2016; Westover et al. 2016; Baxter et al. 2017; Picardi et al. 2020; Roth et al. 2022), survival tends to increase when GRSG inhabit areas further away from conifers (Brussee et al. 2022), and populations have increased when conifers are removed (Olsen et al. 2021).

For the purposes of the Monitoring Framework, an upper limit threshold is needed to determine the percent of conifer cover within a certain distance of sagebrush that still provides suitable habitat for GRSG (see **Appendix C, Table C1** for summaries). Peer-reviewed findings are summarized in the following bullets:

- **0 percent** In Nevada, GRSG preferred areas with no conifer cover for lekking (Nisbet et al. 1983) and for brood rearing to areas with 1 to 10 percent conifer cover (Brussee et al. 2022).
- **2 percent** In California, GRSG preferred less than 2 percent conifer cover year-round (Coates et al. 2017). In Nevada and Utah, GRSG preferred areas with less than 2 percent conifer cover for breeding and summer season (Beers et al. 2022).
- **3 percent** In Oregon and Utah, less than 3 percent conifer was found to be more suitable for GRSG lekking and nesting within 800 meters and 1000 meters (Cook et al. 2017), within 560 meters for lekking (Doherty et al. 2021), and within 800 meters for nesting (Severson et al. 2017).
- **4 percent** In Oregon, Nevada, and Utah, areas with less than 4 percent conifer cover were found to be more suitable for nesting (Sandford et al. 2017; Severson et al. 2017) or found to be more suitable year-round within 400 meters and 800 meters and while there was sagebrush contiguity (Beers et al. 2022). Areas with greater than 4 percent conifer cover had no active leks (Baruch-Mordo et al. 2013) or were found to be less suitable for lekking (Cook et al. 2017).

We examined other work that obtained values outside of this range and determined that they were not useful for our purposes. In California, large-scale evidence suggested that GRSG avoided areas with greater than 5 percent conifer cover for brood rearing; however, 5 percent was set as a value instead of being determined by the data, and subsequent modeling was inconclusive (Casazza et al. 2011). In Nevada and Utah, Beers et al. (2022) found that during winter, GRSG selected areas with less than 11 percent conifer cover, but year-round 4 percent was a more appropriate threshold. In Nevada, GRSG avoided areas with greater than 30 percent conifer cover and selected areas with 10 to 30 percent cover within 1000 meters; the authors speculated that these unusually high conifer cover values may have been in areas where heterogenous shrub communities thrived and, in the absence of predators, attracted GRSG (Gibson et al. 2015).

The range of 0 to 4 percent of tree canopy cover has been shown to have the lowest impacts on GRSG year-round in several states (**Appendix C, Table C1**). Within GRSG habitat the extent and summary statistics (histogram, mean and standard deviation, and median and quartiles) of tree cover that is within 1000m of sagebrush and 1) less than 4 percent and 2) greater than 4 percent will be calculated.

Within GRSG habitat, the trend of tree cover that is greater than 4 percent and is within 1000 meters of sagebrush will be calculated and reported for all years of data using the annual time-series linear trends data from RCMAP to calculate the summary statistics described above. The trend of tree cover will be compared to the trend in sagebrush cover in GRSG habitat at spatial scales relevant to BLM LUP decisions and management, for example, at HAF fine-scale extents.

Measure 2. Habitat Degradation and Development Intensity in GRSG Habitat

Rangewide disturbance estimates

The measure of habitat degradation will be calculated by combining estimated footprints of, or the counts of, threats identified in **Table 3-4** within GRSG habitat. Footprints are estimated to be the direct area of influence of "active" energy and infrastructure and, in combination with feature counts, will be used as a surrogate for human activity. Data sources for each threat are found in **Table 3-4**, Geospatial Data Sources for Habitat Degradation and Intensity Calculations (Measure 2) in GRSG Habitat Excluding the Bi-State

Distinct Population Segment and the Columbia Basin Population. Specific assumptions (inclusion criteria for data, width/area assumptions for point and line features, etc.) and methodologies are described below. All datasets will be updated annually to monitor changes through time and to inform adaptive management.

Table 3-4. Geospatial Data Sources for Habitat Degradation and Intensity Calculations (Measure 2) in GRSG Habitat Excluding the Bi-State Distinct Population Segment and the Columbia Basin Population

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
Energy (oil and gas)	Wells	Information Handling Services (IHS); BLM Automated Fluid Minerals Support System (AFMSS)	5.0 acres (2.0 hectares)	BLM WO-300
	Power Plants	Platts (power plants)	5.0 acres (2.0 hectares)	BLM WO-300
Energy (coal)	Mines	BLM; USFS; Office of Surface Mining Reclamation and Enforcement; USGS Mineral Resources Data System	Polygon area (digitized)	Esri/ Google Imagery
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Energy (wind)	Wind Turbines	Federal Aviation Administration	3.0 acres (1.2 hectares)	BLM WO-300
	Power Plants	Platts (power plants)	3.0 acres (1.2 hectares)	BLM WO-300
Energy (solar)	Fields/Power Plants	Platts (power plants)	7.3 acres (3.0 hectares)/mega watt	National Renewable Energy Laboratory
Energy (geothermal)	Wells	IHS	3.0 acres (1.2 hectares)	BLM WO-300
	Power Plants	Platts (power plants)	Polygon area (digitized)	Esri Imagery
Mining	Locatable Developments	InfoMine	Polygon area (digitized)	Esri Imagery
Infrastructure (roads)	Surface Streets (Minor Roads)	Esri StreetMap Premium	40.7 feet (12.4 meters)	USGS
	Major Roads	Esri StreetMap Premium	84.0 feet (25.6 meters)	USGS
	Interstate Highways	Esri StreetMap Premium	240.2 feet (73.2 meters)	USGS
Infrastructure (railroads)	Active Lines	Federal Railroad Administration	30.8 feet (9.4 meters)	USGS
Infrastructure (power lines)	1 to 199 kilovolt (kV) Lines	Platts (transmission lines)	100 feet (30.5 meters)	BLM WO-300
	200 to 399 kV Lines	Platts (transmission lines)	150 feet (45.7 meters)	BLM WO-300
	400 to 699kV Lines	Platts (transmission lines)	200 feet (61.0 meters)	BLM WO-300

Degradation Type	Subcategory	Data Source	Direct Area of Influence	Area Source
	700+ kV Lines	Platts (transmission lines)	250 feet (76.2 meters)	BLM WO-300
Infrastructure (communication)	Towers	Federal Communications Commission	2.5 acres (1.0 hectares)	BLM WO-300
Infrastructure (other vertical structures)	Tall Structures	Federal Avian Administration	2.5 acres (1.0 hectares)	Knick et al. 2011

Rangewide Habitat Degradation Datasets and Assumptions

Energy (Oil and Gas Wells and Development Facilities)

This dataset will compile information from three oil and gas databases: the proprietary IHS database, the BLM Automated Fluid Minerals Support System (AFMSS) database, and the proprietary Platts (a McGraw-Hill Financial Company) GIS (hereafter, Platts) database of power plants.

Point data from wells active within the last 10 years from IHS and producing wells from AFMSS will be considered as a 5-acre (2.0-hectare) direct area of influence centered on the well point, as recommended by the BLM WO-300 (Minerals and Realty Management). Plugged and abandoned wells will be separated from the active oil and gas well dataset but retained for analysis inclusion if the date of well abandonment was before the first day of the reporting year (i.e., for the 2015 reporting year, a well must have been plugged and abandoned by December 31, 2014 to be removed).

Platts oil and gas power plants data (subset to operational power plants) will also be included as a 5-acre (2.0-hectare) direct area of influence.

Wells marked as plugged and abandoned within the last 10-years will also be segregated from the "active" and "active within the last 10 years" well data described above. These data attempt to quantify energy-related degradation that may have been reclaimed, but not necessarily fully restored to sage-grouse habitat. Direct area of influence will be considered 3 acres (1.2 hectares) (J. Perry, personal communication, February 12, 2014).

Energy (Coal Mines)

Currently, there is no comprehensive dataset available that identifies the footprint of active coal mining across all jurisdictions. Therefore, point and polygon datasets will be used each year to identify coal mining locations. Data sources will be identified and evaluated annually and will include at a minimum: BLM coal lease polygons, United States (U.S.) Energy Information Administration mine occurrence points, U.S. Office of Surface Mining Reclamation and Enforcement coal mining permit polygons (as available), and USGS Mineral Resources Data System mine occurrence points. These data will inform where active coal mining may be occurring.

Coal power plant data from Platts power plants database (subset to operational power plants) will be included. Aerial imagery will then be used to digitize manually the active coal mining and coal power plants surface disturbance in or near these known occurrence areas. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to digitize (generally at 1:10,000 and below) active coal mine and power plant direct area of influence. Coal mine location data source and imagery date will be documented for each digitized coal polygon at the time of creation. Subsurface facility locations (polygon or point location as available) will also be collected if available, included in density

calculations, and added to the active surface activity layer as appropriate (if an actual direct area of influence can be located).

Energy (Wind Energy Facilities)

This dataset will be a subset of the Federal Aviation Administration (FAA) Digital Obstacles point file. Points where attribution indicates the feature is a windmill will be included. The direct area of influence of these point features will be a circular totaling 3 acres (1.2 hectares) centered on each tower point. See the BLM's "Wind Energy Development Programmatic Environmental Impact Statement" (BLM 2005). Additionally, the Platts power plants database will be used for transformer stations associated with wind energy sites (subset to operational power plants), also with the same 3-acre (1.2-hectare) direct area of influence.

Energy (Solar Energy Facilities)

This dataset will include solar plants as compiled with the Platts power plants database (subset to operational power plants). This database includes an attribute that indicates the operational capacity of each solar power plant. Total capacity at the power plant was based on ratings of the in-service unit(s), in megawatts. Direct area of influence polygons will be centered over each point feature representing 7.3 acres (3.0 hectares) per megawatt of the stated operational capacity, per the report of the National Renewable Energy Laboratory, "Land-Use Requirements for Solar Power Plants in the United States" (Ong et al. 2013).

Energy (Geothermal Energy Facilities)

This dataset will include geothermal wells in existence or under construction as compiled with the IHS wells database and power plants as compiled with the Platts database (subset to operational power plants). Direct area of influence of these point features will be measured by converting to a polygon dataset of 3 acres (1.2 hectares) centered on each well or power plant point.

Mining (Active Developments; Locatable, Leasable, Saleable)

This data theme is notably lacking in a comprehensive source spanning the range of GRSG. Currently, there are no known complete databases available for leasable or saleable mining sites beyond coal mines. Aerial imagery will be used to manually digitize large active mining surface disturbance in or near known occurrence areas originally informed by the proprietary InfoMine database. While the date of aerial imagery varies by scale, the most current data available from Esri and/or Google will be used to digitize (generally at 1:10,000 and below) active mine direct area of influence. Mine location data source and imagery date will be documented for each digitized polygon at the time of creation. Other data sources will be evaluated and used as they are identified or as they become available. Point data may be converted to polygons to represent direct area of influence unless actual surface disturbance is available.

Infrastructure (Roads)

This dataset will be compiled from the proprietary Esri StreetMap Premium for ArcGIS. Dataset features that will be used are: Interstate Highways, Major Roads, and Surface Streets to capture paved and "crowned and ditched" roads. The surface street data have been demonstrated to include some "two-track" and 4-wheel-drive routes. The direct area of influence for roads will be represented by 240.2 feet, 84.0 feet, and 40.7 feet (73.2 meters, 25.6 meters, and 12.4 meters) total widths centered on the line feature for Interstate Highways, Major Roads, and Surface Streets, respectively (Knick et al. 2011).

Infrastructure (Railroads)

This dataset will be a compilation from the Federal Railroad Administration Rail Lines of the USA dataset. Non-abandoned rail lines will be used; abandoned rail lines will not be used. The direct are of influence for

railroads will be represented by a 30.8-foot (9.4-meter) total width (Knick et al. 2011) centered on the non-abandoned railroad line feature.

Infrastructure (Power Lines)

This line dataset will be derived from the proprietary Platts transmission lines database. Linear features in the dataset attributed as "buried" will be removed from the disturbance calculation. Only "In Service" lines will be used; "Proposed" lines will not be used. Direct area of influence will be determined by the kV designation: 1 to 199 kV (100 feet/30.5 meters), 200 to 399 kV (150 feet/45.7 meters), 400 to 699 kV (200 feet/61.0 meters), and 700+ kV (250 feet/76.2 meters) based on average right-of-way and structure widths, according to BLM WO-300 (Minerals and Realty Management).

Infrastructure (Communication Towers)

This point dataset will be compiled from the Federal Communications Commission communication towers point file; all duplicate points within the dataset will be removed. Points will be converted to a polygon dataset by using a direct area of influence of 2.5 acres (1.0 hectares) centered on each communication tower point (Knick et al. 2011).

Infrastructure (Other Vertical Structures)

This point dataset will be compiled from the FAA's Digital Obstacles point file. This dataset generally captures all tall structures over 200 meters, with additional structures below this threshold captured in areas surrounding airports which could pose an aviation risk. For additional information please visit the FAA DOF FAQs site. Points where attribution indicates the feature is a windmill will be removed. Duplicate points from the Federal Communications Commission communication towers point file will be removed. The remaining features will be converted to a polygon dataset using a direct area of influence of 2.5 acres (1.0 hectares) centered on each vertical structure point (Knick et al. 2011).

Other Developed Rights-Of-Way

Currently, no additional data sources for other developed rights-of-way have been identified. Roads, power lines, railroads, pipelines, and other known linear features are represented in the categories described above. If additional features representing human activities are identified representing developed rights-of ways outside of the themes described above, they will be added to the degradation analyses using similar assumptions to those used with the threats described above.

Disturbance Inventories

The BLM has partnered with the USGS and, over the past several years, has begun inventorying existing disturbances via "heads-up" digitization using aerial imagery within current Priority Habitat Management Areas (PHMAs). This inventory includes several disturbance types in addition to those used in the rangewide analyses as outlined in the 2015 LUP disturbance appendices:

Coalbed Methane and Other Energy-Related Retention Ponds

The footprint boundary will follow the fence line and includes the area within the fence line surrounding the impoundment. If the pond is not fenced, the impoundment itself is the footprint. Other infrastructure associated with the containment ponds (roads, well pads, etc.) will be captured in other disturbance categories.

Meteorological Towers

This feature includes long-term weather monitoring and temporary meteorological towers associated with short-term wind testing. The footprint boundary includes the area underneath the guy wires.

Nuclear Energy Facilities
The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility's perimeter.

Airport Facilities and Infrastructure (Public And Private)
The footprint boundary will follow the boundary of the airport or heliport and includes mowed areas, parking lots, hangers, taxiways, driveways, terminals, maintenance facilities, beacons and related features. Indicators of the boundary, such as distinct land cover changes, fences and perimeter roads, will be used to encompass the entire airport or heliport.

Military Range Facilities and Infrastructure
The footprint boundary will follow the outer edge of the disturbed areas around buildings and includes undisturbed areas within the facility's perimeter.

Hydroelectric Plants
The footprint boundary includes visible facilities (fence, road, etc.) and undisturbed areas within the facility's perimeter.

Recreation Areas and Facilities
This feature includes all sites/facilities larger than 0.25 acres in size. The footprint boundary will include any undisturbed areas within the site/facility.

Where this inventory is complete in GRSG habitat and if the digitization is within an acceptable timeframe (i.e. not deemed outdated), these disturbance data will also be used to evaluate the existing disturbance footprint and density of development.

Rangewide Habitat Degradation and Development Intensity Data Combination and Calculation Approaches
The threats targeted for measuring human activity (**Table 3-4**) and intensity of activities will be converted to direct area of influence polygons as described for each data source above. These threat polygon layers will be combined to create one overall polygon layer representing footprints of estimated active human activity in GRSG habitat. Individual datasets, however, will be preserved to indicate which types of threats may be contributing to overall habitat degradation. For intensity calculations, source data locations will be preserved with no additional removal beyond the methodology described above. Thus, overlapping inputs will be retained such that the density calculation reflects an overall intensity of development.

More complex disturbance and density estimation approaches may also be implemented, leveraging datasets described above, to facilitate a more complete picture of the level anthropogenic disturbance within GRSG habitat and potential impacts to GRSG habitats. For example, moving window analyses, which estimate development density within multiple spatial extents, can facilitate an understanding of potential direct and indirect effects of development on GRSG habitats (e.g., Decker et al. 2014 and Leinwand, I., N. B. Carr, and D. J. A. Wood 2016).

Measure 2a: What is the estimated amount of habitat degradation rangewide and the estimated change in the amount?
Within GRSG habitats, divide the combined estimated area of the active/direct footprint by the total area of GRSG habitat at spatial scales relevant to BLM LUP decisions and management, for example, at HAF fine-scale extents (percent disturbance in GRSG habitats).

Measure 2b: What is the estimated density of energy development activities and the change in the estimated density?
Within GRSG habitats, divide the total count of energy and mining locations (identified in **Table 3-4**) by the total area of GRSG habitat at spatial scales relevant to BLM LUP decisions and management, for example, at HAF fine-scale extents. The resulting density will be reported in units of "count per square mile".

Measure 2c: Were any disturbance or density caps above project scale exceeded?
Leveraging the outcomes of analyses performed to answer 2a and 2b, summaries of any disturbance or density caps, as articulated in each LUP, will be created.

Measure 2d: What is the amount of reclaimed energy-related degradation on BLM lands and the change in the amount?
Currently no single data repository exists which captures BLM's reclamation accomplishments in a spatial manner. As data becomes available depicting reclamation activities in sage-grouse habitats, they will be summarized.

Measure 3: GRSG Habitat Suitability

Measure 3.a. What is the status of GRSG habitat assessments at the mid-, fine- and site-scales across the range?
BLM will provide a rangewide summary of the total number of GRSG habitat assessments at the mid-, and fine-scales that are either completed or underway.

Measure 3.b. What is the suitability of GRSG habitats at mid- and fine- spatial scales?
BLM will summarize the results of the completed mid- and fine-scale assessments across the range of GRSG. Site-scale summaries are addressed in the LUP section of the BLM Revised GRSG Monitoring Framework.

Measure 4: Achievement of LHS in GRSG Habitat

Measure 4.a. How many acres were evaluated for achievement of the SSS/WL LHS in GRSG habitat across the range?
BLM will evaluate LHS on BLM-managed lands that contain GRSG habitat. Reporting will include the number of acres evaluated in the reporting period, evaluated prior to the reporting period, and not evaluated.

Measure 4.b. For areas that have been evaluated in GRSG habitat, what is the status of land health and what are the causes of non-achievement (as applicable)?
BLM will summarize the results of land health assessments (or functional equivalent) conducted within the reporting period as follows: achieving, making progress towards achieving, or not achieving LHS. Further, BLM will summarize the causes for not achieving land health when a causal factor analysis has been completed. As available, management responses will also be summarized.

Measure 5: BLM On-The-Ground Conservation and Restoration Efforts for GRSG

Measure 5.a. How many acres/miles were conserved or restored by treatment or action type in GRSG habitat?
BLM implements a variety of efforts to conserve and restore GRSG habitat. These efforts range from conifer removal and habitat restoration to riparian exclosures and fence modifications. BLM will use several existing databases to summarize the number of actions and number of acres/miles of conservation efforts by type.

Measure 6: GRSG Population Trend Rangewide

Measure 6.a. What is the rangewide average annual population trend?
The BLM will report rangewide population trends for GRSG. For rangewide populations trends, the BLM will report results from the most current version of the *Range-wide Population Trend Analysis for Greater Sage-*

Grouse (Centrocercus urophasianus) conducted by the USGS (e.g., Coates et al. 2022). This analysis estimates annual rangewide populations trends using these scales:

- Range-wide average annual trend
- Range-wide cumulative trend across three time periods:
  - Short (two oscillations, ~19 years)
  - Medium (four oscillations, ~35 years)
  - Long (six oscillations, ~55 years)

3.3 SECTION II: LUP IMPLEMENTATION MONITORING

3.3.1 Introduction

One key goal of monitoring BLM LUP implementation is to produce data and information to inform the GRSG portion of BLM LUP evaluations (as required by 43 CFR 1610.4-9 and the BLM H-1601-1 Land Use Planning Handbook). This section of the GRSG Revised Monitoring Framework describes the monitoring methodology for BLM to implement three types of monitoring and reporting across GRSG planning areas in 10 western states (California, Colorado, Idaho, Montana, North Dakota, Nevada, Oregon, South Dakota, Utah, and Wyoming):

- LUP implementation monitoring focuses on the primary cross-cutting GRSG conservation commitments (LUP objectives, decisions, and desired conditions) contained in the BLM 2025 GRSG LUP Amendments.
- Planning area GRSG habitat monitoring focuses on assessing suitability of habitat at the mid-, fine- and site scales. Planning area habitat monitoring also focuses on GRSG habitat availability to determine the status of BLM adaptive management habitat thresholds.

Planning area population monitoring focuses on GRSG population trends (tracked in partnership with state wildlife agencies and similar entities) to determine the status of BLM adaptive management population thresholds.

This Revised GRSG Monitoring Framework builds on the BLM's experience of annual monitoring and reporting on the first 5 years of GRSG BLM LUP implementation (2016 to 2020) published in the 5-year monitoring report (BLM Rangewide Monitoring Report, Herren et al. 2021). The structure for this section of the framework carries forward the monitoring questions from the Greater Sage-Grouse Monitoring Framework (Interagency Disturbance and Monitoring Subteam, May 2014) that have been modified to reflect the data, methods and information that has become available since 2015. Two additional monitoring questions have been added. The six monitoring questions are summarized in **Table 3-5**.

Table 3-5. The Six LUP Monitoring Measures, Associated Sub-Measures, Monitoring Questions and Data Sources for BLM Monitoring of GRSG Habitat Conditions and Population Trends

Measures	Monitoring Questions	Data
Measure 1: Status of GRSG habitat suitability within the planning area relative to the LUP objectives		
Measure 1a: Site-scale habitat suitability	What are the seasonal habitat suitability ratings as assessed by the HAF (Stiver et al. 2015, BLM TR 6710-1, as revised) and the combination of site-scale indicators?	State Office and National tracking of completed habitat assessments.

Measures	Monitoring Questions	Data
Measure 1b: Mid- and fine-scale habitat suitability	What are the mid- and fine-scale suitability ratings for GRSG habitats that overlap with the planning area as assessed by the mid- and fine-scale indicators?	State Office and National tracking of completed habitat assessments.
Measure 1c: Status of habitat assessments	What is the status of habitat assessments completed within the planning area?	State Office and National tracking of completed habitat assessments.
Measure 2: SSS/WL standard being achieved, or making progress towards being achieved, in allotments that contain GRSG habitats where evaluations have been completed since the 2024 Record of Decision within the planning area		
Measure 2a: Achieving, making progress towards achieving, or not achieving the SSS/WL standard	What is the number of allotments evaluated in the planning area and how many are achieving, making progress towards achieving, or not achieving the SSS/WL standard?	State Office and National tracking of completed land health evaluations.
Measure 2b: If grazing allotments include areas that are not achieving the standard and current grazing was identified as a significant causal factor	How many livestock grazing authorizations or allotments had management adjusted and what type of action was taken?	State Office tracking of grazing authorizations.
Measure 2c: If grazing allotments include areas that are not achieving the standard and current grazing was identified as a significant causal factor	How many permits/leases include an adaptive management strategy that incorporates specific thresholds and defined responses?	State Office tracking of grazing authorizations.
Measure 3: BLM LUP disturbance and density measures (e.g., surface disturbance caps)		
Measure 3a: Disturbance Caps	Were the disturbance caps for BLM authorizations exceeded at any scale in GRSG HMAs in the planning area? If so, which projects that exceeded the disturbance cap were authorized and why?	State office tracking of authorizations requiring a disturbance cap. Surface Disturbance and Reclamation Tracking Tool (SDARTT) or State managed disturbance databases.
Measure 3b: Density Caps	If applicable, were the density caps for BLM authorizations exceeded at any scale in GRSG HMAs in the planning area? If so, which projects that exceeded the density cap were authorized and why?	State office tracking of authorizations requiring a disturbance cap. SDARTT or State managed disturbance databases.
Measure 4: BLM LUP Adaptive Management habitat or population thresholds		
Measure 4a: Count of tripped thresholds	How many soft or hard BLM LUP adaptive management habitat or population thresholds were tripped in the planning area annually?	State office tracking of adaptive management thresholds.
Measure 4b: Count of untripped/reversed thresholds	How many thresholds were reversed ("untripped") annually in the planning area?	State office tracking of adaptive management thresholds.
Measure 4c: Responses to tripped thresholds taken by BLM	In areas where thresholds were tripped or untripped, what responses as described in the BLM LUP were taken initially? Were the response implementation actions modified after a causal factor analysis, if applicable?	State office tracking of responses to adaptive management thresholds being tripped or untripped.

Measures	Monitoring Questions	Data
Measure 4d: Status of causal factor analyses	What is the status of causal factor analyses? For completed causal factor analyses, what factors were identified as possible causal factors?	State office tracking of causal factor analysis in response to adaptive management thresholds being tripped.
Measure 5: Compensatory Mitigation		
Measure 5a: Use of compensatory mitigation	How many projects included compensatory mitigation annually? Which projects included compensatory mitigation?	State office tracking of compensatory mitigation.
Measure 6: Use of Waivers, Exceptions, or Modifications (WEMs)		
Measure 6a: Projects where WEMs are granted	Of the stipulations in the LUP developed for GRSG, which projects had a WEM granted? Of these projects, which type of stipulation and in which type of GRSG HMA were the WEMs granted?	State office tracking of WEMs associated with authorizations.

3.3.2 Methods

The following methods, datasets, and reporting units apply to implementation, habitat, and population monitoring across all BLM GRSG planning areas including variations that occur in some BLM GRSG planning areas due to partnerships with the states. Additional monitoring of GRSG conservation commitments may be implemented in BLM planning areas. The following descriptions of monitoring and reporting will be implemented to inform the six measures:

Measure 1: Status of GRSG habitat suitability within the planning area relative to the LUP objectives

Summaries of habitat suitability ratings, as assessed by the HAF (Stiver et al. 2015, BLM TR 6710-1, as revised), will be aggregated from National and State Office tracking mechanisms.

Measure 1a: What are the seasonal habitat suitability ratings as assessed by the HAF (Stiver et al. 2015, BLM TR 6710-1, as revised) and the combination of site-scale indicators?

The BLM will summarize the results of site-scale assessment reports that overlap with the planning area, reported in 5-year intervals. Example reporting could include proportional area estimates (e.g., 50 percent suitable, 20 percent marginal, 30 percent unsuitable) or plot counting (e.g., 50 plots suitable, 20 plots marginal, 30 plots unsuitable).

Measure 1b: What are the mid- and fine-scale suitability ratings for GRSG habitats that overlap with the planning area as assessed by the mid- and fine-scale indicators?

The BLM will summarize the results of mid- and fine-scale assessment reports that overlap the planning area.

Measure 1c: What is the status of habitat assessments completed within the planning area?

The BLM will summarize and report on the number of completed habitat assessments that overlap the planning area using the BLM National Operations Center tracking system.

Measure 2: SSS/WL standard being achieved, or making progress towards being achieved, in allotments that contain GRSG habitats where evaluations have been completed since the 2024 Record of Decision within the planning area.

Summaries of allotments achieving, making progress towards achieving, or not achieving the SSS/WL standard.

Measure 2a: What is the number of allotments evaluated in the planning area and how many are achieving, making progress towards achieving, or not achieving the SSS/WL standard?
The BLM will use the BLM's LHS database and State Office tracking mechanisms to monitor and report the achievement of the SSS/WL standard in completed land health evaluations in GRSG habitat within the planning area and whether livestock grazing was identified as a significant causal factor in non-achievement.

Measure 2b: For grazing allotments with areas not achieving SSS/WL standard and livestock grazing is a causal factor, how many livestock grazing authorizations or allotments had management adjusted and what type of action was taken?
The BLM will use available BLM databases and State Office tracking mechanisms to report on the number of livestock grazing authorizations or allotments that had management actions taken in each planning area. BLM Field, District, and State Offices will coordinate to report on the type of actions taken (e.g., changes to season of use or amount of use, changes to infrastructure).

Measure 2c: For grazing allotments with areas not achieving SSS/WL standard and livestock grazing is a causal factor, how many permits/leases include an adaptive management strategy that incorporates specific thresholds and defined responses??
BLM Field, District, and State Offices will coordinate to report on the number of permits/leases that were modified to incorporate an adaptive management strategy that includes specific thresholds and defined responses in each planning area.

Measure 3: BLM LUP disturbance and density measures (e.g. surface disturbance and density caps)
The BLM field offices will use disturbance tracking databases (e.g., SDARTT) or other methods to track the amount of disturbance authorized by the BLM. The BLM State Offices/BLM National Operations Center will compile the results and summaries of habitat disturbance calculations conducted at the project and larger scale management areas within the planning area to include in monitoring reports.

Measure 3a: Were the disturbance caps for BLM authorizations exceeded at any scale in GRSG HMAs in the planning area? If so, which projects that exceeded the disturbance cap were authorized and why?
For projects that exceeded the disturbance cap, the BLM State Offices will identify those projects, and the reason(s) why the disturbance cap was exceeded using available databases and project records (e.g., National Environmental Policy Act of 1969 [NEPA] documents).

Measure 3b: If applicable, were the density caps for BLM authorizations exceeded at any scale in GRSG HMAs in the planning area? If so, which projects that exceeded the density cap were authorized and why?
If the LUP includes a cap on the density of anthropogenic disturbances, the BLM SOs will identify the projects that were authorized which exceeded the density cap and provide the reason for the exceedance using available databases and project records (e.g., NEPA documents).

Measure 4: BLM LUP Adaptive Management habitat or population thresholds
BLM State Offices will complete adaptive management threshold and causal factor (as required) analyses annually as described in each LUP.

Measure 4a: How many soft or hard BLM LUP adaptive management habitat or population thresholds were tripped in the planning area annually?
BLM State Offices, in coordination with BLM Field and District Offices, will report on annual calculations and counts of LUP adaptive management thresholds tripped.

Measure 4b: How many thresholds were reversed ("untripped") annually in the planning area?
BLM State Offices, in coordination with BLM Field and District Offices, will report on annual calculations and counts of LUP adaptive management thresholds untripped.

Measure 4c: In areas where thresholds were tripped or untripped, what responses as described in the BLM LUP were taken initially? Were the response implementation actions modified after a causal factor analysis, if applicable?
The BLM State Office, in coordination with BLM Field and District Offices, will summarize and report on the action(s) taken, as described in the LUP, in response to each threshold being tripped or reversed.

Measure 4c: What is the status of GRSG causal factor analyses? For completed causal factor analyses, what factors were identified as possible causal factors?
The BLM State Office, in coordination with BLM Field and District Offices, will summarize the number and status of causal factor analyses required in response to adaptive management thresholds being tripped or untripped as required in the LUP. For completed causal factor analyses, the BLM State Office, in coordination with BLM Field and District Offices, will also report on the identified causal factors (if known) and the responses or implementation actions taken to address the causal factors if different than those taken in response to a threshold being tripped or untripped (as applicable).

Measure 5: Compensatory Mitigation
BLM State Offices will track the implementation of the use of compensatory mitigation for individual authorizations.

Measure 5a: How many projects included compensatory mitigation annually? Which projects included compensatory mitigation?
The BLM State Office, in coordination with BLM Field and District Offices, will report on the number of authorized projects that included compensatory mitigation and report on which projects included compensatory mitigation.

Measure 6: Use of WEMs
BLM State Offices will track the use of WEMs in GRSG habitat.

Measure 6a: Of the stipulations in the LUP developed for GRSG, which projects had a WEM granted? Of these projects, which type of stipulation and in which type of GRSG HMA were the WEMs granted?
The BLM State Office, in coordination with BLM Field and District Offices, will report on which projects had a WEM granted for the stipulations in the LUP developed for GRSG. Of these projects, the type of stipulation and in which type of GRSG HMA the WEMs were granted will also be reported.

Table 3-6. Example Reporting Structure for WEMs

WEMs granted by BLM by stipulation type and GRSG Habitat Management Type			
Project NEPA ID	**Stipulation Type (No Surface Occupancy, Controlled Surface Use, Timing Limitation)**	**WEM Type (Waiver, Exception, Modification)**	**Habitat Type (PHMA, General HMA)**
Example: NEPA number	Timing Limitation	Exception	PHMA

3.4 SECTION III: EVALUATION OF EFFECTIVENESS

The information collected at the rangewide scale will be used by the BLM to provide a cohesive look at conditions across administrative boundaries. Measures which are analyzed across all lands (vegetation availability and condition, disturbance estimates, etc.) will be also analyzed on BLM managed lands so that BLM management influence on each can be inferred. Similarly, trend analyses and monitoring of changes through time for several measures will facilitate an understanding of BLM's influence on sage-grouse habitats. Conceptually, if rangewide monitoring identifies increasing sagebrush availability and improving vegetation conditions, decreasing disturbance, and a stable or increasing, there is evidence that the BLM's goal to conserve and maintain habitats for healthy populations and connectivity of populations have been met. Conversely, where information indicates that sagebrush is decreasing and vegetation conditions are degrading, disturbance in sage-grouse areas is increasing, and/or populations are declining relative to the baseline, there is evidence that the BLM's goal is not being achieved. Given the variety of measures this Framework outlines, the inherent challenges of establishing cause-and-effect relationships in mixed ownership landscapes and the complexity of population dynamics, such straight forward interpretations are expected to be minimal. To the best of the BLM's ability, factors driving observed changes will be identified and discussed when each measure is examined and synthesized with BLM's role in observed change identified (i.e. were changes due to drought or directly related to BLM's management).

The information collected under the six LUP questions of this monitoring framework will be leveraged in the broader LUP effectiveness evaluation required in 43 CFR 1610.4-9 and as described in the BLM Land Use Planning Handbook (BLM H-1601-1, 2005). BLM State Offices will include sage-grouse specific sections in these evaluations of effectiveness for areas where sage-grouse management goals and objectives are applicable. The complexity of these evaluations may be based on the amount of sage-grouse habitats within the area, known issues within sage-grouse habitats or other factors deemed important by the State Office. The sage-grouse specific components of these evaluations will include, at a minimum, the information collected to inform the six LUP measures. Additional local information that supports or clarifies the conclusions or effectiveness summaries shall also be considered. Information from the range wide effectiveness section of this monitoring framework will be used to inform the effectiveness evaluation at the LUP level as applicable. This information will also be used to place the field office's effectiveness evaluation conclusions in context with how the implementation of sage-grouse management decisions are supporting the overall BLM's goals to conserve and manage GRSG habitats to support persistent, healthy populations, consistent with BLM's sensitive species policy and in cooperation with other conservation partners and maintain existing connectivity between sage-grouse populations. The interdisciplinary team will develop and recommend a suite of actions, as appropriate, the BLM can take to address any conclusions made within the sage-grouse portion of the larger effectiveness evaluation. These recommendations may vary from LUP implementation changes to LUP revisions as described in the Land Use Planning Handbook, section VI.

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APPENDIX A. LANDFIRE ECOLOGICAL SYSTEMS CAPABLE OF SUPPORTING SAGEBRUSH

Table A1. Ecological systems in BpS and EVT capable of supporting sagebrush vegetation and capable of providing suitable seasonal habitat for GRSG.

Ecological System	Sagebrush Vegetation that the Ecological System has the Capability of Producing	Sagebrush (SB) or Sagebrush Associated (SBA)
Colorado Plateau Mixed Low Sagebrush Shrubland	*Artemisia arbuscula* ssp. *longiloba* *Artemisia bigelovii* *Artemisia nova* *Artemisia frigida* *Artemisia tridentata* ssp. *wyomingensis*	SB
Columbia Plateau Low Sagebrush Steppe	*Artemisia arbuscula* *Artemisia arbuscula* ssp. *longiloba* *Artemisia nova*	SB
Columbia Plateau Scabland Shrubland	*Artemisia rigida*	SBA
Columbia Plateau Steppe and Grassland	*Artemisia* spp.	SBA
Great Basin Xeric Mixed Sagebrush Shrubland	*Artemisia arbuscula* ssp. *longicaulis* *Artemisia arbuscula* ssp. *longiloba* *Artemisia nova* *Artemisia tridentata* ssp. *wyomingensis*	SB
Inter-Mountain Basins Big Sagebrush Shrubland	*Artemisia tridentata* ssp. *tridentata* *Artemisia tridentata* ssp. *xericensis* *Artemisia tridentata* ssp. *vaseyana* *Artemisia tridentata* ssp. *wyomingensis*	SB
Inter-Mountain Basins Big Sagebrush Steppe	*Artemisia cana* ssp. *cana* *Artemisia tridentata* ssp. *tridentata* *Artemisia tridentata* ssp. *xericensis* *Artemisia tridentata* ssp. *wyomingensis* *Artemisia tripartita* ssp. *tripartita* *Artemisia frigida*	SB
Inter-Mountain Basins Curl-Leaf Mountain Mahogany Woodland	*Artemisia tridentata* ssp. *vaseyana* *Artemisia arbuscula* *Artemisia tridentata*	SBA
Inter-Mountain Basins Curl-Leaf Mountain Mahogany Shrubland	*Artemisia tridentata* ssp. *vaseyana* *Artemisia arbuscula* *Artemisia tridentata*	SBA
Inter-Mountain Basins Mixed Salt Desert Scrub	*Artemisia tridentata* ssp. *wyomingensis* *Artemisia spinescens*	SBA
Inter-Mountain Basins Montane Sagebrush Steppe	*Artemisia tridentata* ssp. *vaseyana* *Artemisia tridentata* ssp. *wyomingensis* *Artemisia nova* *Artemisia arbuscula* *Artemisia tridentata* ssp. *spiciformis*	SB
Inter-Mountain Basins Semi-Desert Shrub-Steppe	*Artemisia tridentata* *Artemisia bigelovii* *Artemisia tridentata* ssp. *wyomingensis*	SBA
Northwestern Great Plains Mixed Grass Prairie	*Artemisia cana* ssp. *cana* *Artemisia tridentata* ssp. *vaseyana* *Artemisia frigida*	SBA

Ecological System	Sagebrush Vegetation that the Ecological System has the Capability of Producing	Sagebrush (SB) or Sagebrush Associated (SBA)
Northwestern Great Plains Shrubland	*Artemisia cana* ssp. *cana* *Artemisia tridentata* ssp. *tridentata* *Artemisia tridentata* ssp. *wyomingensis*	SBA
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	*Artemisia tridentata*	SBA
Rocky Mountain Lower Montane-Foothill Shrubland	*Artemisia nova* *Artemisia tridentata* *Artemisia frigida*	SBA
Western Great Plains Sand Prairie	*Artemisia cana* ssp. *cana*	SBA
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	*Artemisia arbuscula* ssp. *longiloba* *Artemisia nova* *Artemisia tridentata* ssp. *wyomingensis* *Artemisia tripartita* ssp. *rupicola*	SB
Artemisia tridentata ssp. *vaseyana* Shrubland Alliance (EVT only)	*Artemisia tridentata* ssp. *vaseyana*	SB
Quercus gambelii Shrubland Alliance (EVT only)	*Artemisia tridentata*	SB

APPENDIX B. DATA ACCURACY ASSESSMENTS FOR LANDFIRE AND RCMAP

LANDFIRE Agreement Assessment

In the monitoring framework we will use the most recent version of LANDFIRE EVT data (EVT 2.2.0) which currently is based on the 2016 EVT Remap with updates due to disturbances. The 2016 EVT Remap data were reviewed using agreement assessments that compared individual sample field plots with EVT classes for pixels at plot locations using the Auto-Key EVT assignment. The plot data used for the agreement assessment was not used in the 2016 remap process by LANDFIRE so this was formulated as the most independent and robust test possible for the data. More details of this process are here: https://landfire.gov/remapevt_assessment.php.

Agreement assessments of all classes of data in northwest (NW) and southwest (SW) GeoAreas provide overall results of 47 percent and 42 percent respectively (**Table B1**). However, for GRSG purposes we also aggregated all classes into sagebrush (SB), sagebrush associated (SBA), or nonhabitat using LANDFIRE's process of collapsing categories. This aggregation caused the agreement assessments to increase substantially for both the NW and SW GeoAreas (**Table B1**).

Table B1. Agreement assessments of sagebrush (SB), sagebrush associated (SBA), nonhabitat, and overall classes in LANDFIRE EVT data showing the increased accuracy estimated when classes are grouped.

GeoAreas	SB	SBA	SB and SBA	Nonhabitat	Overall
NW	85%	49%	86%	92%	47%
SW	75%	45%	71%	92%	42%

RCMAP Accuracy Assessment

Rigge et al. (2022) accuracy metrics, using 1860 independent field measurements, are shown in the table under Published. The BLM-conducted accuracy assessment used more than 3,000 data points from the AIM

2.0 database in 2021 and compared them to RCMAP 2020 predictions that used training data to 2019 (Savage and Slyder 2022).

Table B2. Results of RCMAP published and BLM-conducted accuracy assessments (Savage and Slyder 2022).

Indicator	Published			BLM-conducted		
	R2[1]	RMSE[2]	MAE[3]	R2[1]	RMSE[2]	MAE[3]
Annual Herbaceous	0.58	9.8	-	0.13	14.21	7.59
Sagebrush	0.4	7.5	-	0.33	8.41	5.51
Trees	-	-	-	-	-	-

[1] R2 is the coefficient of determination
[2] RMSE is the root mean squared error
[3] MAE is the mean absolute error

APPENDIX C. LITERATURE SUMMARY OF CONIFER EFFECTS ON SAGE-GROUSE

Table C1. Summary of the literature on the effects of conifer cover on GRSG.

Name	% Conifer Cover	Distance/ Area	State	Leks	Nesting	Brood Rearing	No Season Given
Baruch-Mordo et al. 2013	>4%	-	OR	No active leks	-	-	-
Baxter et al. 2017	-	-	UT	-	-	Selected areas far from trees	-
Beers et al. 2022	<2%, <11%, <4%	400m, 800m	NV UT	Summer and breeding Winter Year-round, selected for sagebrush patch contiguity			
Brussee et al. 2022	0%	-	NV	-	-	Preferred no pinyon-juniper to 1-10% conifer	-
Casazza et al. 2011	<5% (threshold was selected by the scientists based on Miller et al 2005)	7.9 ha (20 acre, 160m radius); 226.8 ha (560 acre, 850m radius)	CA	-	-	GRSG avoided pinyon-juniper at large scale, but models were unsuccessful at explaining this	-
Coates et al. 2017	< 2%	-	CA	-	-	-	GRSG tolerate <2% but less may be better for survival
Cook et al. 2017	4% >3 %	1000m 800m	UT	Lower suitability	Lower suitability	-	-

Name	% Conifer Cover	Distance/ Area	State	Leks	Nesting	Brood Rearing	No Season Given
Doherty et al. 2010	-	100m	MT, WY	-	Strong avoidance of conifer within	-	-
Doherty et al. 2016	-	-	MZs	Strong neg relationship between GRSG occurrence and tree canopy cover			
Doherty et al. 2021	>3%	560m	OR	Lower suitability	-	-	-
Fedy et al. 2014	-	-	WY	GRSG avoided forested areas			
Gibson et al. 2015	>30%, 10-30%	1000m	NV	-	Avoided 10-30% areas were selected	-	-
Nisbet et al. 1983	0%	-	NV UT	Lek model preference for sites with no conifer	-	-	-
Olsen et al. 2021	-	-	OR	GRSG population increased where conifer was removed, suggest limit to <10% cover			
Picardi et al. 2020	-	-	UT	Modeled relationship found that areas with no conifer cover would be selected and areas with high conifer cover would be avoided			
Roth et al. 2022	-	-	NV	-	GRSG selected pinyon-juniper class (1-10%) was below average	-	-
Sandford et al. 2017	>4%	-	UT	-	Less suitable for nesting habitat	-	-
Severson et al. 2017	>3%, >4%	800m	OR	-	Lower suitability, Marginal/unsuitable	-	-
Westover et al. 2016	-	-	UT	GRSG avoided areas with high percentage of trees GRSG broods found further from trees			

Appendix 4

Greater Sage-Grouse Habitat Indicators and Benchmarks

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Appendix 4. Greater Sage-Grouse Habitat Indicators and Benchmarks

4.1 Incorporating the Best Available Science into the Habitat Assessment Framework Process

The Habitat Assessment Framework (HAF/ BLM TR 6710-1, as revised) provides a standardized, scientifically based methodology to assess sage-grouse habitat suitability at multiple scales (broad, mid, fine, and site-scales, Levels 1, 2, 3 and 4 respectively). Habitat suitability occurs along a gradient ranging from unsuitable to suitable and is rarely uniform within and across the scales. Using multi-scale evaluations is important for assessing GRSG habitat by considering the entire suite of conditions that contribute to high quality habitat, the success of past conservation actions, and prioritizing future land uses and conservation actions. Descriptions of the scales of habitat selection (broad-, mid-, fine-, and site-) and the associated indicators for habitat assessment at each scale are available in the HAF (BLM TR 6710-1, as revised).

4.2 Habitat Indicators and Benchmarks for Site-Scale HAF

The vegetation characteristics associated with site-scale habitat suitability vary across the range of GRSG. For example, characteristics (both indicators and benchmarks) in the grasslands of Montana are different than the characteristics in the sagebrush shrublands in the southern Great Basin of Utah and Nevada. The HAF technical reference includes general site-scale forms for the indicators and benchmark values for suitable site scale habitat ratings. The indicators and benchmark values used in these forms at the site scale should be updated to incorporate the best available research related to habitat suitability applicable to the regional and local variability.

The Habitat Indicators Tables (**Table 4-1.A-C**) provide a list of indicators and benchmarks, derived from local and regional research on GRSG habitat selection, that collectively are used to inform habitat suitability. These indicators and benchmarks have been updated from those in the HAF based on more recent and localized research. BLM Montana/Dakotas will use the indicators and benchmarks in **the tables below** to assess each monitoring location within seasonal habitats for site-scale suitability, with data collected during the appropriate corresponding seasonal use period, as applicable to address phenological changes. Not all areas within a given habitat management area will be capable of meeting the identified seasonal habitat values in the Habitat Indicators Table due to inherent variation in vegetation communities and ecological potential. Habitat Indicators and Benchmarks are habitat conditions that are based on habitat selection that may not be achievable or applicable in all areas. Site-specific benchmarks must be based on the site's ecological potential informed by ecological site descriptions and associated state-and-transition models and the site's current ecological state.

When completing site-scale assessments, **it is *inappropriate* to use a single indicator** from **Tables 4-1.A-C** or the HAF habitat suitability form to determine overall habitat suitability of the plot (i.e., suitable, marginal, or unsuitable) unless sagebrush is absent or limiting. Instead, BLM staff must consider all the indicators using multiple lines of evidence, as described in the HAF and in the training materials, to determine the plot's overall habitat suitability. The measured habitat indicator values will vary seasonally, driven largely by use and environmental conditions (e.g., ecological site potential of the monitoring plot), including factors such as annual rainfall, drought, annual production, and natural disturbances, such as high intensity wildfires and flooding. In addition, a site may not meet the suitable rating if many indicators are impacted by annual climate variability (e.g., drought conditions), which is independent of management. Thus, it is critical to document environmental factors when completing the habitat suitability forms. This information is essential to inform land health assessments and evaluations. Factors to inform assessments

and evaluations could also include grouping portions of the landscape based on ecological characteristics that influence their impact to and recovery from changes on the landscape (e.g., fire, drought and other extreme weather events, insect outbreaks, soil disturbance, etc.). Use of such disturbance response groupings (considering disturbance in the ecological sense, not based on the RMP disturbance cap) may also be appropriate to scale ecological site descriptions for larger planning areas and provide context to HAF assessments (Stringham et al. 2016).

Indicators are assessed following the methods described in the Sage-grouse Habitat Assessment Framework. BLM will leverage the terrestrial Assessment, Inventory, & Monitoring (AIM) methods (Herrick et al. 2021), additional monitoring approaches for wetland & riparian habitats, credible partner data, and supplemental long-term monitoring data and guidelines developed by the BLM to collect data on site-scale habitat condition (**Tables 4-1.A-C**). Not all monitoring locations within a given seasonal habitat area will be able to achieve all suitable benchmark values in the Habitat Indicators Tables due to the inherent variation in vegetation communities and ecological site potential. The intent is not to meet all habitat requirements at all monitoring locations, but to provide seasonal habitat requirements sufficiently across the landscape. Marginal or unsuitable ratings may still provide, or have the capacity to provide, one or more of the habitat components.

As additional research becomes available, new data could continue to refine or clarify GRSG selection for vegetation structure and composition in seasonal habitats for certain populations. Because of this, the Habitat Indicators Tables was updated for this effort and will be periodically reviewed to incorporate the best available science in coordination with applicable federal, state, local, and tribal agencies. The values provided in Table 4-1.A-C, as updated, will be used for HAF assessments. The addition or adjustment to indicators or benchmarks in the Habitat Indicators Table must include the reference or basis for which the changes are made. Edits should only be made if warranted by scientific evidence, in coordination with the applicable state agency.

4.2.1 Montana/Dakotas GRSG Habitat Indicators Tables

Montana/Dakotas BLM offices will utilize three sets of boundaries, mostly aligned with one or multiple mid-scale HAF boundaries. These areas and associated offices are:

Name	Boundary and Offices
Headwaters	SW Montana: Dillon and Butte (Headwaters HAF Midscale)
North-Central Prairies	HiLine, Lewistown, UMRBNM, and parts of Billings and Miles City FOs (Northern Border and Midrivers HAF Midscale)
Bighorn-Custer High Plains	North and South Dakota, Billings and Miles City south of Yellowstone River (Custer midscale with extension to WY border)

Table 4-1.A. Headwaters Habitat Indicators and Benchmarks

Attribute	Indicator	Benchmarks	Reference
LEK HABITAT (Seasonal Use Period March 1 – May 15) [1]			
Lek Security	Proximity of trees	Trees and tall structures (> 3m [10 ft.]) are absent within 0.65 km (.388 miles) of leks (line of sight).	Stiver et al. 2015
	Tree Cover in the Landscape	Tree canopy cover is < 1% within 3 kilometers (1.86 miles) of leks	Baruch-Mordo et al. 2013 Stiver et al. 2015
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover is within 328 ft. (100 m) of a leks	Stiver et al. 2015
NESTING/EARLY BROOD REARING (Seasonal Use Period May 1 – June 30) [1]			
Cover and Food	Sagebrush cover [2]	15-25%	Connelly et al. 2000 Connelly et al. 2003 Hagen et al. 2007
	Sagebrush height Arid sites [3] Mesic sites [4]	 12-31 inch (30-80cm) with taller individual sagebrush available within stand (for nesting) and a variety of heights (including those <30 cm) 16-31 inch (40-80cm) with taller individual sagebrush available within stand (for nesting) and a variety of heights (including those <40 cm)	Connelly et al. 2000 Scroff 2016 Boccadori et al. 2023 Scroff et al. 2018
	Predominant sagebrush shape	Predominantly spreading shape [5]	Stiver et al. 2015
	Perennial grass cover [2, 5] Arid sites [3] Mesic sites [4]	 ≥ 10% ≥ 15%	Conway et al. 2025 Smith et al. 2020 Smith et al. 2018 Stiver et al. 2015 Connelly et al. 2000
	Perennial grass height (includes residual grasses) [5]	≥ 7 inches (18 cm)	Conway et al. 2025 Smith et al. 2020 Smith et al. 2018 Connelly et al. 2000 Connelly et al. 2003 Hagen et al. 2007 Stiver et al. 2015
	Perennial forb cover [2] Arid sites [3] Mesic sites [4]	 ≥ 5% ≥ 10%	Connelly et al. 2000
	Perennial forb availability	Preferred forbs are common with several species present [7]	Stiver et al. 2015
	Invasive annual grass cover	<2% cover	BLM synthesis of research [10]
	Trees (e.g. Conifer)	0 (Absence of conifer trees)	BLM synthesis of research [11]

Attribute	Indicator	Benchmarks	Reference
LATE BROOD-REARING/SUMMER (Seasonal Use Period June 16th-October 31)[1] Late brood-rearing areas, such as riparian, meadows, springs, higher elevation mesic uplands, etc. may occur within other mapped seasonal habitat areas. Apply late brood rearing/summer habitat desired conditions locally as appropriate.[8]			
Cover and Food	Sagebrush cover [2]	Uplands 10-25% Riparian/Meadow: Sagebrush cover within 100 m	Connelly et al. 2000
	Sagebrush height	16 to 32 inches (40-80cm)	Connelly et al. 2000
	Perennial grass and forb cover [2]	≥ 15%	Connelly et al. 2000 Hagen et al. 2007 Sant et al. 2014
	Upland and riparian perennial forb availability [2]	Preferred forbs are common with appropriate numbers of species present (e.g., ≥ 5)[7]	Stiver et al. 2015
	Riparian and/or meadow habitat condition	Proper Functioning Condition	Stiver et al. 2015 BLM 1997 Prichard et al. 1999 Prichard 1998 Gonzalez and Smith 2020
	Invasive annual grass cover	<2% cover	BLM synthesis of research [11]
	Conifer	0 (Absence of conifer trees)	BLM synthesis of research [12]
WINTER November-March [1] (Apply to areas of known or likely winter-use) [9, 10]			
Cover and Food	Sagebrush cover	≥15% cover	Connelly et al. 2000 Stiver et al. 2015 Dusek et al. 2002
	Sagebrush height	>16 inch (40cm) with multiple tall sagebrush available within stand	Connelly et al. 2000 Stiver et al. 2015 Dusek et al. 2002
	Invasive Annual Grass Cover	<2%	BLM synthesis of research [11]
	Conifer	0 (Absence of conifer trees)	BLM synthesis of research [12]

Notes:
[1] Seasonal dates can be adjusted by local unit according to geographic region.
[2] Since plant species and/or life forms may overlap, total vegetative cover, inclusive of shrubs, forbs and grasses may exceed 100%.
[3] Arid corresponds to the 10 – 12 inch precipitation zone; *Artemisia tridentata wyoming*ensis is a common big sagebrush subspecies for this type site (Stiver et al. 2015).
[4] Mesic corresponds to the >12 inch precipitation zone; *Artemisia tridentata vaseyana* is a common big sagebrush sub-species for this type site (Stiver et al. 2015).
[5] Adequate nesting cover may be provided by a mix of shrub and herbaceous. For sites with sagebrush canopy cover and/or heights at the low end or below the benchmark values, higher herbaceous cover may provide suitable conditions for nesting. Conversely, for sites with preferred nesting shrubs (height, width, branch distribution, etc.) grass cover may not be predictive of suitable nesting locations.
[6] Collectively the indicators for sagebrush (cover, height, and shape), perennial grass and perennial forb (cover, height and/or availability) represent the desired condition range for nesting/early brood rearing habitat characteristics, consistent with the breeding habitat suitability matrix identified in Stiver et al. 2015. Sagebrush plants that are more tree or columnar-shaped provide less protective cover near the ground than sagebrush plants with a spreading shape (Stiver et al. 2015). Some sagebrush plants are naturally columnar (e.g., Great Basin big sagebrush), and a natural part of the plant community. However, a predominance of columnar shape arising from animal impacts may warrant management investigation or adjustments at site specific scales.
[7] Preferred forbs are listed in Stiver et al. 2015. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.
[8] Some late brood-rearing habitat occurs at higher elevations outside of mapped nesting habitat and some is embedded within nesting landscapes especially areas such as wet meadows, riparian areas, springs and seeps.
[9] Winter habitat metrics are a guideline but snow depths and habitat availability may vary widely depending on winter severity, topography and elevation.
[10] Winter habitat generally taller and denser stands relative to availability
[11] BLM synthesis of research on the impacts invasive annual grasses have on sage-grouse habitat suitability (**Attachment 4-1**)
[12] BLM synthesis of research on the impact conifer have on sage-grouse habitat suitability (**Attachment 4-2**)

Table 4-1.B. North-Central Prairies Habitat Indicators and Benchmarks

Attribute	Indicator	Benchmarks	Reference
Lek Habitat (Seasonal Use Period March 1 – May 15) [1]			
Lek Security	Proximity of trees	Trees and tall structures (> 3m [10 ft.]) are absent within 0.65 km (.388 miles) of leks (line of sight).	Stiver et al. 2015
	Tree Cover in the Landscape	Tree canopy cover is < 1% within 3 kilometers (1.86 miles) of leks	Baruch-Mordo et al. 2013 Stiver et al. 2015
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover is within 328 ft. (100 m) of leks	Stiver et al. 2015
NESTING/EARLY BROOD REARING (Seasonal Use Period May 1 – June 30) [1]			
Cover and Food	Sagebrush cover [2] WY Big Sage [3] Silver Sage [4]	 10-25% ≥5% (≥10)% [6]	Berkeley et al. 2013 Connelly et al. 2000 Doherty et al. 2010 Lane 2005 Hagen et al. 2007 Sant et al. 2014 Tack 2010
	Sagebrush height [2] WY Big Sage [3] Silver Sage [4]	 6-31 inch (15-80cm) with taller individual sagebrush available within stand (nesting shrubs) and a variety of heights (i.e., adequate nest cover based on ecological site potential) [2] 16-31 inch (40-80cm) with taller individual sagebrush available within stand (for nesting) and a variety of heights (including those <40 cm) [2]	Connelly et al. 2000 Lane 2005 Foster et al. 2014 Tack 2010
	Predominant sagebrush shape	Predominantly spreading shape [5]	Stiver et al. 2015
	Perennial grass cover	≥10%	Conway et al. 2025 Connelly et al. 2000 Lane 2005 Sant et al. 2014 Smith et al. 2018 Smith et al. 2020
	Perennial grass height (includes residual grasses)[2]	≥18 cm (≥7.1 inches) - i.e., adequate nest cover based on ecological site potential and seasonal precipitation	Conway et al. 2025 Berkeley et al. 2013 Connelly et al. 2000 Doherty et al. 2014 Hagen et al. 2007 Taylor et al. 2012 Smith et al. 2018 Smith et al. 2020
	Perennial forb cover	≥5%	Connelly et al. 2000 Sant et al. 2014
	Perennial forb availability	Preferred forbs are common with several species present (≥5) [7]	Stiver et al. 2015
	Invasive annual grass cover	<2% cover	BLM synthesis of research [10]
	Trees (i.e., Conifer)	0 (Absence of conifer)	BLM synthesis of research [11]

Attribute	Indicator	Benchmarks	Reference
LATE BROOD-REARING/SUMMER (Seasonal Use Period June 16th-October 31)[1]			
Cover and Food	Sagebrush cover WY Big Sage [4] Silver Sage [5] Saline/Acid Shale/Clay [6]	 10-25% 2-25% 5-25% Riparian/Meadow: Sagebrush cover within 100m	Connelly et al. 2000 Lane 2005 Hagen et al. 2007 Sant et al. 2014 Foster et al. 2014
	Sagebrush height WY Big Sage [4] Silver Sage [5] Saline/Acid Shale/Clay [6]	 12 to 31 inch (30-80cm) 12 to 31 inch (30-80cm) ≥ 6 inches (15cm)	Connelly et al. 2000 Lane 2005
	Perennial grass cover WY Big Sage [4] Silver Sage [5] Saline/Acid Shale/Clay [6]	≥ 15% ≥ 15% ≥ 10%	Connelly et al. 2000 Hagen et al. 2007 Sant et al. 2014
	Perennial forb cover WY Big Sage [4] Silver Sage [5] Saline/Acid Shale/Clay [6]	≥ 5% ≥ 10% ≥ 3%	Prichard et al. 1999 Schroeder et al. 2020 BLM 1997
	Upland and riparian perennial forb availability WY/Silver Sage [4,5] Saline/Acid Shale/Clay [6]	 Preferred forbs are common with several species present (≥5) [7] Preferred forbs are common with several species present (≥3) [7]	Connelly et al. 2000 Stiver et al. 2015
	Riparian and/or meadow habitat condition	Majority of sites are in Proper Functioning Condition	BLM 1997 Prichard et al. 1999 Prichard 1998 Gonzalez and Smith 2020
	Invasive annual grass cover	<2% cover	BLM synthesis of research [10]
	Conifer presence	0 (Absence of conifer)	BLM synthesis of research [11]
WINTER (Seasonal Use Period: November 1 to February 28) [8, 9]			
Cover and Food	Sagebrush cover	≥15% cover, or cover supported based on ecological site potential	Connelly et al. 2000 Stiver et al. 2015 Dusek et al. 2002
	Sagebrush height	Multiple tall sagebrush available (>12 inch, 30cm) within stand [7,8]	Connelly et al. 2000 Stiver et al. 2015 Dusek et al. 2002
	Invasive Annual Grass Cover	<2%	BLM synthesis of research [10]
	Trees (i.e., Conifer)	0 (Absence of conifer trees)	BLM synthesis of research [11]

Notes:
[1] Seasonal dates can be adjusted by local unit according to geographic region.
[2] Adequate nesting cover may be provided by a mix of shrub and herbaceous. For sites with sagebrush canopy cover and/or heights at the low end or below the benchmark values, higher herbaceous cover may provide suitable conditions for nesting. Conversely, for sites with preferred nesting shrubs (height, width, branch distribution, etc.) grass cover may be less important towards providing suitable nesting locations. Overall cover and height may be lower based on ecological site potential but still provide important components of suitable GRSG habitat as part of the heterogeneous landscape.
[3] WY Big Sage - Unglaciated, semiarid (10-14 inches annual precipitation) plains where the dominant, most common, shrub is Wyoming Big Sage. Characterized by frigid soil temperature regime and the overlap of Great Plains rhizomatous grasslands and sagebrush ecosystems
[4] Silver sage – Predominantly areas north of the Milk River in Montana. Characterized by mixed grass prairie habitat containing silver sage (most common shrub, species of sagebrush)
[5] Saline/Acid Shale/Clay – Low productivity sites due to site limitations, soils. However, provide brood rearing and foraging habitat for sage-grouse as part of the heterogeneous landscape.

[6] In silver sage communities, both sagebrush and total shrub cover should be considered. Studies of nesting GRSG indicate that up to half of shrub cover may be of other species in silver sage habitats.
[7] Preferred forbs are listed in Stiver et al. 2015. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.
[8] Winter habitat metrics are a guideline but snow depths and habitat availability may vary widely depending on winter severity, topography and elevation.
[9] Winter habitat generally taller and denser stands relative to availability
[10] BLM synthesis of research on the impacts invasive annual grasses have on sage-grouse habitat suitability (**Attachment 4-1**)
[11] BLM synthesis of research on the impact conifer have on sage-grouse habitat suitability (**Attachment 4-2**)

Table 4-1.C. Bighorn-Custer High Plains Habitat Indicators and Benchmarks

Attribute	Indicator	Benchmarks	References
Lek Habitat (Seasonal Use Period March 1 – May 15) [1]			
Lek Security	Proximity of trees	Trees and tall structures (> 3m [10 ft.]) are absent within 0.65 km (.388 miles) of leks (line of sight).	Stiver et al. 2015
	Tree Cover in the Landscape	Tree canopy cover is < 1% within 3 kilometers (1.86 miles) of leks	Baruch-Mordo et al. 2013 Stiver et al. 2015
	Proximity of sagebrush to leks	Adjacent protective sagebrush cover is within 328 ft. (100 m) of a leks	Stiver et al. 2015
NESTING/EARLY BROOD REARING (Seasonal Use Period May 1 – June 30) [1]			
Cover and Food	Sagebrush cover [2] High Plains [3] Transitional Prairie [4]	 10-25% 2-25%	Herman–Brunson 2007 Swanson 2009 Doherty et al. 2010 Hagen et al. 2007 Doherty et al. 2011 Foster et al. 2014 Wright and Wegner 2008
	Sagebrush height [2] High Plains [3] Transitional Prairie [4]	 12-31 inch (30-80cm) with taller individual sagebrush available within stand (for nesting) and a variety of heights (including those <30 cm) [2] 7-31 inch (18-80cm) with taller individual sagebrush available within stand (for nesting) and a variety of heights (including those <30 cm) [2]	Swanson 2009 Doherty et al. 2011 Schroeder et al. 2020 Holloran et al. 2005
	Predominant sagebrush shape	Predominantly spreading shape [5]	Stiver et al. 2015
	Perennial grass cover [2] High Plains [3] Transitional Prairie [4]	 ≥10% ≥15%	Conway et al. 2025 Doherty et al. 2010 Hagen et al. 2007 Doherty et al. 2011 Holloran et al. 2005 Smith et al. 2018 Smith et al. 2020
	Perennial grass height (includes residual grasses) [2]	≥18 cm (≥7.1 inches) - i.e., adequate nest cover based on ecological site potential and seasonal precipitation	Conway et al. 2025 Doherty et al. 2014 Smith et al. 2018 Foster et al. 2014 Smith et al. 2018 Smith et al. 2020
	Perennial forb canopy cover	≥5%	Doherty et al. 2010 Hagen et al. 2007 Doherty et al. 2011 Holloran et al. 2005
	Perennial forb availability	Preferred forbs are common with several species present (≥5) [5]	Stiver et al. 2015

Attribute	Indicator	Benchmarks	References
	Invasive annual grass cover	<2% cover	BLM synthesis of research [6]
	Trees (i.e., Conifer)	0 (Absence of conifer trees)	BLM synthesis of research [7]
BROOD-REARING/SUMMER (Seasonal Use Period June 16-October 31)[1]			
Cover and Food	Sagebrush cover High Plains [3] Transitional Prairie [4]	 10-25% 2-25%	Herman–Brunson 2007 Swanson 2009 Doherty et al. 2010 Hagen et al. 2007 Doherty et al. 2011 Foster et al. 2014
	Sagebrush height High Plains [3] Transitional Prairie [4]	 12 to 31 inch (30-80cm) ≥ 6 inches (15cm)	Doherty et al. 2011 Foster et al. 2014 Schroeder et al. 2020 Holloran et al. 2005
	Perennial grass cover High Plains [3] Transitional Prairie [4]	 ≥10% ≥15%	Doherty et al. 2010 Hagen et al. 2007 Doherty et al. 2011 Holloran et al. 2005
	Perennial forb cover	≥10%	Prichard et al. 1999 Schroeder et al. 2020 BLM 1997
	Upland and riparian perennial forb availability	Preferred forbs are common with several species present (≥5)	Stiver et al. 2015 Doherty et al. 2011
	Riparian and/or meadow habitat condition	Majority of sites are in Proper Functioning Condition	BLM 1997 Prichard et al. 1999 Prichard 1998 Gonzalez and Smith 2020
	Invasive annual grass cover	<2% cover	BLM synthesis of research [6]
	Trees (i.e., Conifer)	0 (Absence of conifer trees)	BLM synthesis of research [7]
WINTER (Seasonal Use Period November 1-February 28) [8,9]			
Cover and Food	Sagebrush cover	≥10% cover, or cover supported based on ecological site potential	Swanson 2009 Foster et al. 2014 Schroeder et al. 2020 Dusek et al 2002
	Sagebrush height	Multiple tall sagebrush available (>12 inch, 30cm) within stand [8,9]	Doherty et al. 2011 Schroeder et al. 2020
	Invasive Annual Grass Cover	<2%	BLM synthesis of research [6]
	Trees (i.e., Conifer)	0 (Absence of conifer trees)	BLM synthesis of research [7]

Notes:
[1] Seasonal dates can be adjusted by local unit according to geographic region.
[2] Adequate nesting cover may be provided by a mix of shrub and herbaceous. For sites with sagebrush canopy cover and/or heights at the low end or below the benchmark values, higher herbaceous cover may provide suitable conditions for nesting. Conversely, for sites with preferred nesting shrubs (height, width, branch distribution, etc.) grass cover may be less important towards providing suitable nesting locations. Ecological site, including site potential and state, and additional GRSG information may inform suitability and benchmarks for individual sites.
[3] High Plains - Unglaciated, rolling, semiarid (10-14 inches annual precipitation) plains. Characterized by frigid soil temperature regime and the overlap of Great Plains rhizomatous grasslands and sagebrush ecosystems
[4] Transitional Prairie - Fringe areas on the edge of sagebrush range (far east Montana into the Dakotas) and Desertic Basins (more arid areas)
[5] Preferred forbs are listed in Stiver et al. 2015. Overall total forb cover may be greater than that of preferred forb cover since not all forb species are listed as preferred.
[6] BLM synthesis of research on the impacts invasive annual grasses have on sage-grouse habitat suitability (**Attachment 4-1**)
[7] BLM synthesis of research on the impact conifer have on sage-grouse habitat suitability (**Attachment 4-2**)
[8] Winter habitat metrics are a guideline but snow depths and habitat availability may vary widely depending on winter severity, topography and elevation.
[9] Winter habitat generally taller and denser stands relative to availability

4.3 USING THE HABITAT INDICATORS TABLE

The Habitat Indicators Table is to be used as follows:

- To inform habitat suitability at one point in time, as defined by the processes described in the Habitat Assessment Framework and BLM HAF Implementation Guidelines.
- To inform measurable project objectives during implementation-level planning for BLM-permitted and BLM-initiated actions in HMAs, as applicable.
- To inform agency decision-makers regarding consideration of whether a project or proposal should be approved, denied, or modified based on how it would affect an area's existing habitat suitability status.

Additional guidance on the use of the Habitat Indicators Table and the associated products is available in the Habitat Assessment Framework (Stiver et al. 2015, BLM TR 6710-1, as revised) and BLM Sage-grouse HAF Implementation Guidelines.

When assessing seasonal habitat suitability, the BLM will summarize and report the number of monitoring locations, or amount of seasonal habitat in the analysis area, that are suitable, marginal, or unsuitable. Based on the monitoring locations rated as suitable, marginal, or unsuitable and the documentation of conditions across the entire analysis area such as ecological site potential (using appropriate ecological site descriptions, State and Transition Models, reference sheets, etc.), weather, and land ownership patterns, the BLM will determine if a given seasonal habitat is a limiting factor for sage-grouse. All rationale will be documented in a HAF summary report.

Relationship of the Habitat Indicators Table to other assessment and planning tools

The indicators and benchmarks in the Habitat Indicators Table are meant to inform the wildlife and/or sensitive species component of the Land Health Standards evaluation process (LHS, 43 CFR 4180.2; **Figure 4-1**). The Habitat Indicators are not land health standards and do not replace land health assessments. The indicators relating to vegetative cover are assessed using AIM methodology (Herrick et al. 2021). The HAF, GRSG Monitoring Framework (see **Appendix 3**), and land health assessments all incorporate AIM data to monitor existing conditions and track changes over time. The Land Use Plan (LUP) indicators use AIM methods to measure several of the GRSG habitat indicators.

Table 4-2. Relationships of LUP, HAF, LHS and MF to the GRSG Habitat Objectives

Land Health Standards (LHS) Evaluation	Land Use Plan (LUP)	GRSG Habitat Assessment Framework (HAF)	GRSG Monitoring Framework (MF)
Evaluates if the sage-grouse portion of the Special Status Species Land Health Standard is achieved or significant progress towards achievement is made. These evaluations utilize HAF results along with other data.	Sets GRSG habitat objective(s) and Identifies the GRSG habitat indicators (see **Table 4-1.A-C** above) and benchmarks from best available science for evaluating progress toward meeting the objective	Provides methods to assess GRSG habitats using the LUP indicators and benchmarks from this appendix (see **Table 4-1.A-C** above)	Provides framework for reporting progress toward achieving the objective(s) of the LUP

4.4 INAPPROPRIATE USES OF THE HABITAT INDICATORS TABLE

- Using the indicator value(s) as default desired conditions to inform LUP effectiveness without considering the current state compared to ecological potential of the site and relevant local information where measurements were taken.
- Using a single measured indicator value such as grass height to determine sage-grouse habitat suitability.
- Using a single indicator as a criterion to modify grazing management or any other use.
- Adjusting use authorizations based on measured indicator values without adequate monitoring data.
- Adjusting use authorizations before determining whether the change will help move towards suitable habitat.

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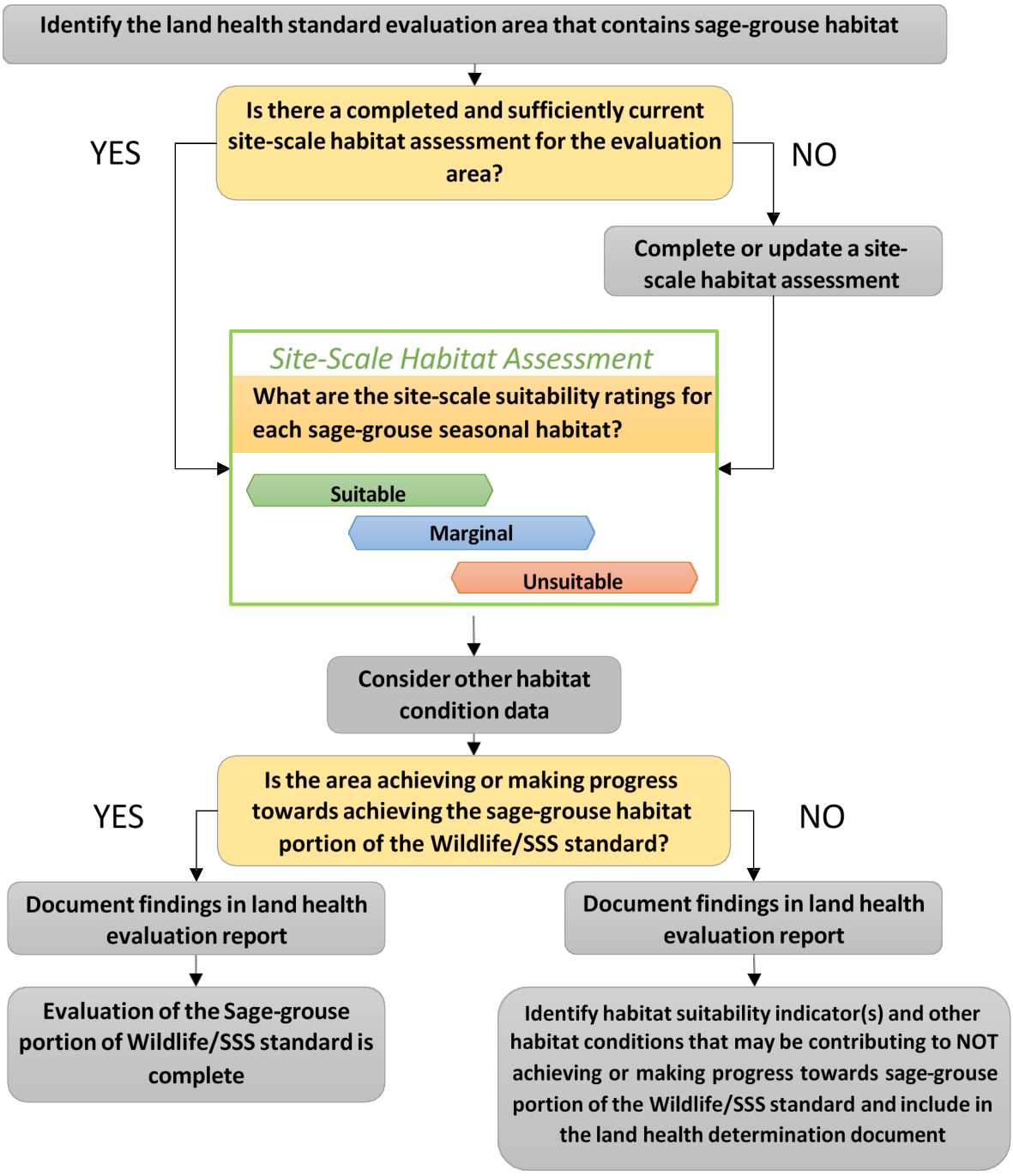
Figure 4-1. Flowchart on Incorporating the Results of Site-Scale Sage-Grouse Habitat Assessment* into Wildlife/SSS Standard in the Land Health Assessments and Evaluations**


Identify the land health standard evaluation area that contains sage-grouse habitat
Is there a completed and sufficiently current site-scale habitat assessment for the evaluation area?
YES
NO
Complete or update a site-scale habitat assessment
Site-Scale Habitat Assessment
What are the site-scale suitability ratings for each sage-grouse seasonal habitat?
Suitable
Marginal
Unsuitable
Consider other habitat condition data
Is the area achieving or making progress towards achieving the sage-grouse habitat portion of the Wildlife/SSS standard?
YES
NO
Document findings in land health evaluation report
Document findings in land health evaluation report
Evaluation of the Sage-grouse portion of Wildlife/SSS standard is complete
Identify habitat suitability indicator(s) and other habitat conditions that may be contributing to NOT achieving or making progress towards sage-grouse portion of the Wildlife/SSS standard and include in the land health determination document

Acronyms:

SSS – Special Status Species
* Following the Sage-Grouse Habitat Assessment Framework (Stiver et al. 2015)

**For the complete land health standards evaluation and causal factor determination workflow, refer to: Kachergis, E., N. Lepak, M. Karl, S. Miller, and Z. Davidson. 2020. Guide to Using AIM and LMF Data in Land Health Evaluations and Authorizations of Permitted Uses. Tech Note 453. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.

Attachment 4-1. Justification for Invasive Annual Grass as a Habitat Suitability Indicator at the Sage-grouse Habitat Assessment Framework (HAF) Site-Scale

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Finalized on: October 12, 2023

BACKGROUND

Invasive annual grasses, such as cheatgrass, medusahead, and ventenata species, are a recognized threat to sagebrush ecosystems (Chambers et al. 2016, Remington et al. 2021, Rowland et al. 2019) causing reduced ecosystem function, displacement of native vegetation, increased fire risk and reduced rates of post-fire recovery (D'Antonio and Vitousek 1992, Bradely et al. 2018) all of which can lead to degradation and/or loss of sage-grouse habitat (Nelle et al. 2000, Wik et al. 2002, Coates et al. 2015, Coates et al. 2016, Lockyer et al. 2015, Steenvoorden et al 2019, Brussee et al. 2022, Poessel et al. 2022). The Bureau of Land Management (BLM) uses the Sage-grouse Habitat Assessment Framework (HAF; Stiver et al. 2015) to assess sage-grouse habitat suitability at multiple spatial scales (mid-, fine- and site-scale) by examining scale-specific indicators that represent both habitat requirements (i.e., food, water, cover, security) and threats to habitat (i.e., anthropogenic disturbances, proximity of trees to leks). However, invasive annual grasses are not included as an indicator of habitat suitability at any scale of the HAF (Stiver et al. 2015). This omission has been recognized by both authors and implementors of the HAF as a shortcoming that should be remedied, as supported by scientific literature.

The purpose of this document is to:

- Provide scientifically based rationale for including invasive annual grass cover as an additional indicator in HAF site-scale habitat assessments (Stiver et al. 2015, revised), and
- Recommend scale-specific benchmarks for invasive annual grass cover for HAF site-scale assessments based on scientific literature relevant to that scale.

RATIONALE

Research has shown that invasive annual grasses can reduce habitat suitability for sage-grouse, at the site-scale (i.e., microhabitat), by displacing native vegetation and altering habitat composition and structure (Chambers et al. 2016, Coates et al. 2017, Brussee et al. 2022). This degradation can cause sage-grouse to avoid areas with invasive annual grasses (Lockyer et al. 2015, Coates et al. 2017, Poessel et al. 2022) and can cause lower occupancy and survival rates in areas with invasive annual grasses (Wik et al 2002, Kirol et al. 2012, Lockyer et al. 2015). General speaking, studies have shown that greater sage-grouse will use areas with relatively low amounts of invasive annual grasses for nesting and brood-rearing; however, in areas with relatively higher amounts of invasive annual grasses, rates of occupancy and/or survival are lower (Coates et al. 2017, Dinkins et al. 2016, Lockyer et al. 2015, Schreiber et al. 2015, Stonehouse et al. 2015, Wik 2002).

For example, a study conducted in Nevada and California found that cheatgrass abundance was the single greatest micro-habitat feature distinguishing greater sage-grouse nest sites from random sites in the study area and that average cheatgrass cover at nest sites (7.1%; SE=1.0) was lower than at random sites (13.3%;

SE=1.2) (Lockyer et al. 2015). A study in Idaho found that successful nests had lower average cheatgrass cover (1%) than unsuccessful nests (4%) while successful broods had lower average cheatgrass cover (2%) than unsuccessful broods (6%) (Wik et al. 2002). In Nevada and California, a study indicated that > 5% annual grass cover was unsuitable for GRSG during nesting and brood-rearing (Coates et al. 2017). They also recommended suitability categories for invasive annual grasses in nesting habitat specific to xeric sites (<2.5% invasive annual grass cover is suitable, 2.5 – 4.8% is marginal, >4.8% is unsuitable) and mesic sites (<2.5% invasive annual grass cover is suitable, 2.5 – 5.2% is marginal, >5.2% is unsuitable).

Although individual studies reported different values of invasive annual grass cover associated with sage-grouse site selection and nest/brood success, there was notable overlap. In studies that examined site selection (not success), they reported mean values ranging between <1% to 17% cover of invasive annual grasses at used sites (regardless of success), with most reporting <7% cover (**Table 1**). In studies that examined nest and/or brood success relative to invasive annual grasses, they reported mean values between 1% to 7% for successful sites (Wik et al. 2002, Lockyer et al. 2015) (**Table 1**). Of note, some studies have shown that sage-grouse exhibit maladaptive site selection to invasive annual grasses and other habitat indicators due to nest site fidelity (Coates et al. 2017, Brussee et al. 2022, Cutting et al. 2019) so nest/brood success may be a more accurate indicator of the impacts of invasive annual grasses to sage-grouse habitat suitability.

Collectively, this research indicates that invasive annual grasses can reduce habitat suitability for nesting and brood-rearing greater sage-grouse at the site-scale and that habitat suitability generally decreases as invasive annual grass cover increases. It is recommended that invasive annual grass cover be included as a habitat suitability indicator for sage-grouse habitat assessments conducted at the HAF site-scale, as described in the Recommendations section below.

Table 1. The table below lists and describes key aspects and findings from research that has examined the relationship of invasive annual grass cover to greater sage-grouse habitat selection and/or survival at the site-scale (i.e., microhabitat). Note that no studies specifically examined the potential impacts of invasive annual grasses on Gunnison sage-grouse.

Citation	State	Scale/ Extent	Season	Applicable Findings
Coates et al. 2017	NV	10m of nest	Nesting	Mean invasive annual grass cover at nests was 4.8% in xeric sites and 5.1% in mesic sites. Authors recommended suitability categories: • xeric sites (suitable is <2.5%, marginal is 2.5 – 4.8%, unsuitable is >4.8%) and • mesic sites (suitable is <2.5%, marginal is 2.5 – 5.2%, unsuitable is >5.2%)
		10m of brood	Brood-rearing	Mean invasive annual grass cover at brood sites was 4.3% in xeric 4.79% in mesic. Authors recommended suitability categories: • xeric sites (suitable is <2.5%, marginal is 2.5 – 4.3%, unsuitable is >4.3%) and • mesic sites (suitable is <2.5%, marginal is 2.5 – 4.8%, unsuitable is >4.8%)
Dinkins et al. 2016	WY	5m of nest	Nesting	Mean invasive annual grass cover at nests 2.14% (SE=0.11) which was higher but similar to random sites with a mean of 1.75% (SE=0.10).
Kirol et al. 2012	WY	8m of nest	Nesting	Nest selection was negatively related to the presence of cheatgrass when compared to available habitat. "Cheatgrass occurred at 6% of the nest locations and 19% of the corresponding random locations."

Citation	State	Scale/ Extent	Season	Applicable Findings
Lockyer et al. 2015	NV/CA	0.01ha of nest	Nesting	Average cover of cheatgrass at nests and random sites was 7.1% (SE=1.0) and 13.3% (SE=1.2), respectively. Sites with >7.1% cheatgrass cover had lower nest success. Cheatgrass was the single greatest micro-habitat feature distinguishing nests from random sites.
Schreiber et al. 2015	WY	20m of brood	Brood-rearing	Cheatgrass cover was lower at early brood-rearing sites (0.55% +/-0.38%) than at random points (0.71% +/-0.30%) but similar. Cheatgrass cover was lower at late brood-rearing sites (1.44% +/-0.65%) than at random points (2.13% +/-0.72%) but similar.
Stonehouse et al. 2015	WA		Nesting	Mean cover of invasive annual grasses at nest sites was 13% (SE=1); random sites were not assessed.
Wik et al. 2002	ID	20m of nest	Nesting	All nests had an average of 3% cover. Successful nests had lower average cheatgrass cover (1% in 20m transect) than unsuccessful nest (4% in 20m transect).
		20 m of brood	Brood-rearing	All broods had average of 5% cheatgrass. Unsuccessful broods had lower cheatgrass (2% in 20m) at use-sites than successful broods (6% in 20m).
Wing et al. 2014	UT	15m of nest	Nesting	All nest, brood, and non-brooding use sites had cheatgrass which was similar in cover to random sites. Cheatgrass cover means: Nest mean = 17.6% (0.8), Brood mean = 15.6% (0.8), non-brood females and males = 14.3% (0.7), random sites mean = 15.9% (0.8).

RECOMMENDATIONS

Based on the findings of the research summarized above (**Table 1**), invasive annual grass cover should be assessed as a habitat indicator for nesting/early brood-rearing, late brood-rearing, and wintering habitat during a HAF site-scale assessment using the following benchmarks, adjusted as warranted by best available science. Note that these benchmarks were based more heavily on research that examined nest and brood *success* relative to invasive annual grass cover (more so than research that examined *use versus availability* of habitat) because sage-grouse have been shown to exhibit maladaptive site selection (Coates et al. 2017, Brussee et al. 2022, Cutting et al. 2019). Invasive annual grasses are not assessed at the site-scale for leks because the AIM strategy does not include leks in its sampling strategy; however, invasive annual grasses are assessed for lekking habitat at the HAF *fine-scale*. There was not sufficient research to suggest different benchmarks for winter habitat due to a lack of research on winter habitat as compared to nesting and brood-rearing. If future research indicates otherwise, benchmarks may be adjusted accordingly.

Table 2. Recommended habitat suitability benchmarks for assessing invasive annual grass at the HAF site-scale.

Habitat Indicator	Metric	Benchmarks		
		Suitable	Marginal	Unsuitable
Invasive Annual Grass	% cover	<2%	2 – 5%	>5%

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Attachment 4-2. Justification for Conifer as a Habitat Suitability Indicator at the Sage-grouse Habitat Assessment Framework (HAF) Site-Scale

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Finalized on: October 12, 2023

BACKGROUND

Recent research has shown that conifer expansion into native sagebrush communities can reduce habitat suitability for sage-grouse (Nisbet et al 1983, Doherty et al. 2010, Fedy et al. 2014, Doherty et al. 2016, Westover et al. 2016, Baxter et al. 2017, Picardi et al. 2020, Saher et al. 2021, Brussee et al. 2022, Roth et al. 2022). The Bureau of Land Management (BLM) uses the Sage-grouse Habitat Assessment Framework (HAF; Stiver et al. 2015) to assess sage-grouse habitat suitability at multiple spatial scales (mid-, fine- and site-scale) by examining scale-specific indicators that represent both habitat requirements (i.e., food, water, cover, security) and threats to habitat (i.e., anthropogenic disturbances, predation risk). However, conifer cover is not included as an indicator of habitat suitability at any scale of the HAF (Stiver et al. 2015). This omission has been recognized by BLM personnel as a shortcoming of the HAF that should be remedied, as supported by scientific literature.

The purpose of this document is to:

- Provide scientifically based rationale for including conifer as an additional habitat indicator in HAF site-scale habitat assessments (Stiver et al. 2015, revised), and
- Recommend scale-specific thresholds for conifer for HAF site-scale assessments based on scientific literature relevant to that scale.

RATIONALE

Studies that examine site-scale sage-grouse habitat (also referred to as microhabitat) often do not report or analyze conifer as a habitat characteristic, likely because it is not a habitat requirement of sage-grouse but rather a deterrent, especially at such a small scale (e.g., within 10m of a nest site). In a review of over 40 peer-reviewed microhabitat studies on sage-grouse, no study reported conifer cover as a standard microhabitat characteristic for sage-grouse (such as sagebrush cover, grass height, forb cover) nor did they test for a relationship between conifer and sage-grouse. A few studies, such as Duvuvuei 2013 and Wing 2014, reported frequency of nests located under conifer in Utah (see **Table 1**). Wing 2014 reported that nesting under juniper was rare and that only one of those nests was successful. Duvuvuei 2013 showed that nests were commonly placed under junipers, especially by translocated females, but suggested that use of juniper for nesting was due to maladaptation caused by a lack of sagebrush cover and extensive juniper expansion into the study area.

Most studies that examine the potential impacts of conifer on sage-grouse and their habitat are conducted at landscape scales, typically estimating conifer cover near sage-grouse locations (e.g., within 1,000m of a nest site) using remotely sensed landcover data. These studies have established that conifer cover, even in low amounts (e.g., <2 % cover), can negatively impact sage-grouse across all seasons (lekking, nesting, brood-rearing and wintering) causing avoidance and/or reduced vital rates (Nisbet et al 1983, Doherty et

al. 2010, Fedy et al. 2014, Doherty et al. 2016, Westover et al. 2016, Baxter et al. 2017, Picardi et al. 2020, Saher et al. 2021, Brussee et al. 2022, Roth et al. 2022). However, these findings are mostly applicable to HAF mid- and/or fine-scale assessments which are also landscape level.

Given the established negative impacts of conifer cover on sage-grouse at landscape scales and the lack of conifer being reported in microhabitat studies (i.e., suggesting avoidance of conifer at site-scales), it is recommended that conifer be included as a habitat suitability indicator for sage-grouse habitat assessments conducted at the HAF site-scale, as described in the Recommendations section below.

Table 1. The table below lists and describes key aspects and findings from research that has examined the relationship of conifer to greater sage-grouse habitat selection and/or survival at the site-scale (i.e., microhabitat). Note that no studies specifically examined the potential impacts of invasive annual grasses on Gunnison sage-grouse.

Name	Tree Type	State	Season	Applicable Findings
Wing 2014	Juniper	UT	Nesting	GRSG females rarely selected juniper as a nesting shrub (n=4) and only one nest was successful.
Duvuvuei 2013	Juniper	UT	Nesting	Translocated GRSG females (24%) nested under juniper but was accredited to lack of sagebrush cover and extensive conifer expansion in study area.

RECOMMENDATIONS

Based on the rationale above, conifer should be assessed as a habitat indicator during HAF site-scale assessments for nesting, brood-rearing, and wintering habitat. Conifer is not being added as an additional indicator in lek assessments because existing lek indicators already incorporate conifer and other trees. The metric used to assess conifer suitability is the count of conifer and, if available, the height of those conifer relative to surrounding sagebrush (or native shrubs, if used as a surrogate), using the benchmarks shown below (adjusted as warranted by best available science). Percent conifer is not recommended as the primary metric for conifer suitability because there is insufficient science to support a benchmark at the site-scale; however, percent conifer cover may still be used as ancillary information, as interpreted by local experts, to support assessment of conifer as a habitat suitability indicator.

Table 2. Recommended habitat suitability benchmarks for assessing conifer at the HAF site-scale.

Habitat Indicator	Metric	Benchmarks		
		Suitable	Marginal	Unsuitable
Conifer	Count	• 0 trees (absence of conifer)	If height is unknown: • 1 tree If height is known: • 1 tree that is taller than local average sagebrush height, and/or • <=3 trees that are not taller than local average sagebrush height	If height is unknown: • >1 tree If height is known: • >1 tree that is taller than local average sagebrush height, and/or • >3 trees that are not taller than local average sagebrush height

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Appendix 5

Livestock Grazing Best Management Practices and Design Features

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Appendix 5. Livestock Grazing Best Management Practices and Design Features

5.1 Livestock Grazing Management Best Management Practices and Design Features

The following best management practices (BMP) provide a list of strategies, practices, or design features to be considered during implementation of the Approved RMP Amendment. These measures are not required to be considered in every instance but can be useful to aid in proper livestock grazing management in GRSG habitats. The applicability and overall effectiveness of each BMP cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some BMPs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations. For example, variations could be required for the following reasons:

- A specific BMP is not applicable to the site-specific conditions of the project/activity.
- An alternative BMP, a state-implemented conservation measure, or plan-level protection provides equal or better protection for GRSG or its habitat.
- A specific BMP will not avoid or minimize impacts to GRSG or its habitat.

5.1.1 Coordination

- 43 CFR 4100 regulations direct BLM to consult, cooperate and coordinate when engaging in program work. The BLM coordinates with Federal, State, county, Indian tribal and local governmental entities, institutions, organizations, corporations, associations, and individuals when authorizing grazing on BLM lands. In GRSG habitat management areas, these communication efforts should include coordination on how livestock grazing practices could be managed across both BLM-administered lands and non-BLM-administered lands, in partnership with interested permittees and lessees, to improve GRSG habitat conditions.

5.1.2 Best Management Practices for Livestock Grazing Management

- Set priorities for grazing management activities (e.g., monitoring, authorization renewals, field checks) following direction in agency policy or implementation guidance. When considering competing priorities in GRSG habitat, considerations should include level of management priority (PHMA vs GHMA) and focusing on areas where current livestock grazing management is a significant causal factor to not meeting or making significant progress towards meeting Montana/Dakotas Land Health Standard (LHS) 5[1], and those containing riparian areas, including

[1] Montana/Dakotas has four sets of Land Health Standards and each of these includes a habitat standard as the fifth standard. The offices covered and specific standards include: 1) Butte, Dillon, and Missoula (STANDARD #5: Provide habitat as necessary, to maintain a viable and diverse population of native plant and animal species, including special status species.); 2) Dakotas (STANDARD #5: Habitats are maintained and/or restored, where appropriate, for healthy, productive and diverse populations of native plant and animal species); 3) Lewistown and the HiLine (STANDARD #5: Habitats are provided to maintain healthy, productive and diverse populations of native plant and animal species, including special status species - federally threatened, endangered, candidate or Montana species of special concern as defined in BLM Manual 6840, Special Status Species Management); and 4) Billings and Miles City (Habitats are provided for healthy, productive, and diverse native plant and animal populations and communities. Habitats are improved or maintained for special status species - federally threatened, endangered, candidate or Montana species of special concern). Collectively these are referred to as Montana/Dakotas Land Health Standard 5.

wet meadows. Other criteria for prioritization can include the need to respond to urgent natural resource concerns (e.g., fire) and legal obligations.

- When current livestock management practices are determined to not be meeting or making progress towards meeting LHS 5 (following appropriate consultation, cooperation and coordination, consistent with BLM Handbook H-4180-1), implement changes in grazing management through grazing authorization modifications, or allotment management plan implementation. Potential modifications, either within the existing terms and conditions or considered as additional alternatives in grazing authorization NEPA analysis as a threshold/response, (not presented in any priority order) could include, but are not limited to, changes in:
  - Season or timing of use;
  - Numbers of livestock;
  - Distribution of livestock use;
  - Duration and/or level of use;
  - Kind of livestock (e.g., cattle, sheep, horses, or goats) (Briske et al. 2011); and
  - Range improvements.
- Locate supplements (salt, mineral, protein, etc.) away from water sources, meadows, riparian areas, swales, and GRSG leks in locations that increase livestock distribution unless effective control of livestock to avoid detrimental impairment of any riparian area or GRSG habitats can be ensured.
- When using salt or mineral supplements, place them outside intact sagebrush stands to reduce impacts to GRSG breeding habitat. For example, place supplements in existing disturbed sites, areas with reduced sagebrush cover, to reduce impacts on GRSG breeding habitat.
- During the lekking season, encourage minimal vehicle use and maintenance activities associated with livestock management during lekking (before 9 am and after 6 pm) within 0.6 miles of an active lek.
- To decrease attracting predators or decreasing water quality, whenever found and wherever possible, remove dead livestock from GRSG habitat and dispose of in ways that does not attract predators to GRSG habitat. If it is not possible to entirely remove livestock carcasses, they should, at a minimum, be removed from riparian areas and water sources.
- In PHMA and GHMA, areas that have received vegetation treatments should be rested from livestock grazing until resource monitoring data verifies the treatment objectives specific to the purposes of the treatment are being met and an appropriate grazing regime has been developed. Examples of vegetation treatments include seedings, hazardous fuels reduction treatments, emergency stabilization and rehabilitation efforts.
- Avoid disturbing lekking and roosting GRSG from human, guard animal, and sheep activities by trailing, overnighting, watering, and bedding sheep on public lands at least 0.6 miles from active leks (dates of lek activity determined locally, approximately March 15–May 1 in lower elevations and March 25–May 15 in higher elevations).
- When trailing livestock during the lekking or nesting season, use roads or existing trails, to the extent possible.
- When available, use GRSG habitat use-pattern mapping or habitat monitoring to strategically adjust livestock distribution to benefit occupied GRSG breeding habitat, include herding, salting, and water-source management (e.g., turning troughs/pipelines on/off and extending pipelines/moving troughs) in grazing programs.
- Ensure that permittees are informed of management and movement requirements related to avoiding recent burns, habitat rehabilitation, or other restoration sites.
- Identify and, when feasible, establish strategically located forage reserves, focusing on areas where restoration to GRSG habitat is unlikely or lower priority habitat restoration areas.

5.1.3 Design Features for Range Improvements

- When installing new range improvement projects in PHMA, avoid construction during the applicable seasonal use periods associated with lekking, nesting, or brood rearing seasonal habitats (March 1 – July 15, or as identified for local variability in coordination with the state wildlife agency or other appropriate agency with management expertise and authority).
- Use temporary range infrastructure, such as troughs, fences, and supplements, where feasible and appropriate, to meet management objectives.
- Install shutoff valves at spring sources and troughs. Ensure shutoff valves are closed and troughs are drained when livestock are not utilizing the pasture, as consistent with the water laws of the State within which the land is located.
- Install lids on spring collection boxes.
- Install floats in troughs to prevent overflow and keep water at spring sources, as consistent with the water laws of the State within which the land is located.
- Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by GRSG and other wildlife; do not use unsecured, unstable, or ineffective items such as floating boards or similar objects.
- Locate troughs outside meadows, swales, and riparian areas.
- Design new water developments to maintain hydrologic function of spring sources, water courses and associated riparian habitat, as consistent with State water laws.
- Consider virtual fencing opportunities, as appropriate.
- To minimize risk of noxious or invasive plant spread, require all heavy equipment used in construction of range improvements to be thoroughly cleaned of all soil and plant material prior to entering public lands.
- To minimize livestock concentration impacts on nesting and early brood rearing sage-grouse, locate new livestock handling facilities (such as corrals) away from active leks and outside of nesting habitat at least by 1.2 miles (Manier et al. 2014). Where corrals already exist, minimize activity to the extent possible to accomplish livestock management objectives outside nesting and early brood rearing season.
- Design new and maintain existing water projects to avoid standing pools of shallow water that could spread West Nile Virus.

5.1.4 Drought Response

- When completing a fully processed grazing authorization in GRSG habitat, incorporate strategies for livestock management during drought conditions.
- During drought conditions use a recognized drought indicator, such as the Drought Monitor, Vegetation Drought Response Index, or Palmer Drought Severity Index, to determine when abnormally dry or drought conditions are developing, present, or easing. When such conditions are developing or present:
  - Conduct pre-season assessments prior to livestock turn out.
  - Monitor vegetation conditions during authorized livestock use periods to determine need for early removal and/or other changes to meet seasonal RMP objectives.
- During drought periods, prioritize evaluating effects of drought in PHMA relative to GRSG needs for food and cover (including riparian areas); ensure that post-drought management allows for vegetation recovery, based on ecological potential, that meets GRSG needs in priority GRSG habitat areas. Where ESDs or STMs are lacking for an area, the best available information to achieve the GRSG needs should be used.
- If livestock grazing is deferred due to drought, reevaluate vegetation and GRSG habitat indicators that measure GRSG habitat prior to reauthorization of grazing.

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Appendix 6

Montana/Dakotas Fluid Minerals Stipulations for Unleased Lands

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Appendix 6. Montana/Dakotas Fluid Minerals Stipulations for Unleased Lands

6.1 MONTANA/DAKOTAS FLUID MINERALS STIPULATIONS FOR UNLEASED LANDS SUMMARY: APPROVED RMP AMENDMENT

No.	Area	Stip Type	Language
1.	PHMA/ LMHMA/SCHMA	NSO	GREATER SAGE-GROUSE PHMA, LMHMA, and SCHMA To protect high density GRSG habitat, including all seasonal habitats, surface occupancy and use is prohibited within Priority Habitat Management Areas (PHMA), the Little Missouri HMA, and the South Carter HMA. For the Little Missouri HMA, the NSO only applies to the North Dakota portion.
2.	PHMA/LMHMA	CSU	GREATER SAGE-GROUSE PHMA and LMHMA Projects that exceed disturbance or density thresholds will need to be redesigned, relocated, or modified to avoid or minimize disturbance to sage grouse habitat or density of facilities in PHMA and the Little Missouri HMA (refer to Disturbance Cap section in **Table 2** of Approved RMP Amendment). For the Little Missouri HMA, the CSU only applies to the North Dakota portion.
3.	GHMA	NSO	GREATER SAGE-GROUSE LEKS IN GHMA To protect GRSG breeding activities, surface occupancy and use is prohibited within 0.6 mile of the perimeter of active leks and lek complexes in General Habitat Management Areas (GHMA).
4.	GHMA	NSO	GREATER SAGE-GROUSE CRUCIAL WINTER RANGE IN GHMA To protect GRSG winter concentration area, surface occupancy and use is prohibited for fluid mineral exploration and development in crucial winter range in General Habitat Management Areas (GHMA).
5.	GHMA	CSU	GREATER SAGE-GROUSE SEASONAL HABITATS IN GHMA Surface occupancy and use will be avoided unless the project proponent can clearly demonstrate that the impacts can be adequately addressed through application of the mitigation framework, including conservation actions, needed design features, and offsets/lek buffers. Prior to surface-disturbing or disruptive activities a plan to maintain functionality of breeding, nesting sage-grouse, brood rearing and/or winter habitats for Greater Sage-Grouse will be prepared by the proponent and implemented upon approval by the Authorized Officer. The plan shall address how short-term and long-term direct and indirect effects to seasonal habitats will be mitigated based on current science and research.

No.	Area	Stip Type	Language
6.	LMHMA	CSU	GREATER SAGE-GROUSE SEASONAL HABITATS IN LMHMA Surface occupancy and use would be allowed with design features to minimize disturbance to sage-grouse habitat in the Little Missouri Habitat Management Area. This CSU only applies within the Montana portion of the Little Missouri HMA (i.e., the Cedar Creek Anticline).
7.	CHMA	CSU	GREATER SAGE-GROUSE CHMA Surface occupancy and use will be avoided unless the project proponent can clearly demonstrate that the impacts to potential stopover sites can be adequately mitigated. Prior to such activities a plan to mitigate impacts will be prepared by the proponent and implemented upon approval by the AO.
8.	ALL HMAs	TL	GREATER SAGE GROUSE ALL HMA TYPES To protect GRSG populations utilizing important seasonal habitats, no surface use is allowed from December 1 through March 15 in winter range, March 15 - July 15 in breeding and nesting habitats and during migratory periods for stopover sites. This stipulation does not apply to operation and maintenance of production facilities.
9.	All HMAs	LN	**GREATER SAGE-GROUSE HABITAT CONSERVATION** The lease may, in part or in total, contain important greater sage grouse habitats as identified by the BLM, either currently or prospectively. The operator may be required to implement site-specific GRSG habitat conservation, mitigation, or compensation requirements identified during the BLM environmental review process and would be developed into the project proposal or as terms and conditions of the subsequent approval. Such measures shall be developed during the application for permit to drill on-site and environmental review process and will be consistent with the lease rights granted. Lessee/operators may be required to demonstrate they have submitted their project to the appropriate state authority(ies) for GRSG populations and habitat for review and have incorporated any state program requirements into their project proposal in any designated GRSG habitat (e.g., in Montana, to the Sage-Grouse Habitat Conservation Program). The objectives of these requirements are to avoid, minimize, or compensate for unavoidable impacts associated with fluid mineral development in order to provide a no net habitat loss as outlined in the mitigation framework. Therefore, prior to project-specific approval, the Authorized Officer may consider compensatory mitigation measures proffered by a project proponent, or compensatory mitigation requested or required by a state plan, program, or authorization. Any state required mitigation may be incorporated as a proposed design feature for a proposed project.

6.2 MONTANA/DAKOTAS OIL & GAS LEASE STIPULATION COMPLETE TEXT:

6.2.1 No Surface Occupancy: Greater Sage-Grouse PHMA, LMHMA, and SCHMA

Stipulation: To protect high density Greater-Sage Grouse habitat, including all seasonal habitats, surface occupancy and use is prohibited within Priority Habitat Management Areas (PHMA), the Little Missouri HMA, and the South Carter HMA. For the Little Missouri HMA, the NSO only applies to the North Dakota portion.

Objective: To maintain areas with the most important habitats and highest densities of GRSG (e.g., core areas) by facilitating long-term sustainability by minimizing impacts to habitat through disturbance and disruption. Since GRSG utilize different seasonal habitats and require connectivity between these areas, fluid mineral operations should avoid new surface disturbing and disruptive activities across GRSG breading areas (leks), nesting habitat, brood rearing areas, and winter concentration areas used in mild to severe winters (i.e., all winter range).

Waiver: The Authorized Officer may consider and grant a waiver of the NSO stipulation on an existing lease after documenting, in coordination with the appropriate state agency, that the lease with the GRSG NSO stipulation is no longer in PHMA, LMHMA, or SCHMA. This would only be applicable on leases that were issued when the parcel was in PHMA, LMHMA, or SCHMA then the HMA boundaries were subsequently adjusted through the appropriate planning process (i.e., plan maintenance or amendment).

Prior to waiving the NSO stipulation for a given area, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Exceptions: The Authorized Officer may consider and grant an exception to the NSO stipulation for PHMA (and Little Missouri HMA in North Dakota, South Carter HMA) only for activities farther than 0.6 miles from a lek. No Exceptions would be granted within 0.6 miles of a lek. Outside this boundary an exception may be considered if one of the following criteria apply:

- The proposed location on public lands would be undertaken as an alternative to a similar action occurring on a nearby non-public lands parcel (e.g., due to ownership patterns), and development on the public parcel in question would eliminate impacts on more important and/or limited GRSG habitat (e.g., wet meadows, brood-rearing habitat) on the non-public nearby parcel; this exception must also include measures sufficient to allow the BLM to conclude in its documenting analysis that such benefits will endure for the duration of the proposed action's impacts on public lands (e.g., confirmation of an easement).
- By co-locating the proposed authorization, and associated infrastructure, with existing disturbance, no additional impacts would be realized above those already associated with the existing infrastructure, including indirect disturbance to or disruption of adjacent seasonal habitats that may impair their biological function.

Granting the exception must be in conformance with the RMP GRSG goal and habitat objectives, and not result in direct, indirect, or cumulative effects on GRSG or its habitats after application of the mitigation framework (refer to Mitigation section in **Table 1** of Approved RMP Amendment). While the exception to the NSO stipulation could be granted, the project must still comply with other GRSG management actions (e.g., mitigation, disturbance cap CSU, minerals/energy density, seasonal restrictions TL, RDFs.).

To approve this exception, the Authorized Officer, after coordination with the appropriate state agency, must document that the proposed action satisfies at least one of the criteria listed above. If the appropriate state agency does not concur with granting the exception, the Authorized Officer must provide rationale for how the criteria are met considering the information the state provides. The final determination to grant the exception will then be at the discretion of the BLM State Director.

Prior to granting an exception to an NSO stipulation the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

If the area associated with the proposed development seeking the exception (e.g., well pad, compressor station) is in an area that has met one of the adaptive management thresholds (refer to Adaptive Management section in **Table 1** of Approved RMP Amendment), no exceptions would be considered until the causal factor analysis is completed and the BLM has determined that allowing exceptions is still warranted.

Modification: The Authorized Officer may, in coordination with the appropriate state agency, consider and grant a modification to the fluid mineral lease NSO stipulation, allowing for surface occupancy only where:

1) an exception is granted, as described above, for the primary disturbance (e.g., well pad, compressor station), **AND**
2) the potential associated infrastructure related to the development is not individually precluded by other actions (e.g., roads, pipelines, power lines that could otherwise be considered through a ROW).

While the NSO stipulation could be modified for these additional developments, they must still comply with other GRSG management actions (e.g., mitigation, disturbance cap, minerals/energy density, seasonal restrictions, RDFs) if an exception to the NSO is granted.

Prior to modifying the area subject to the NSO stipulation, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

If the area associated with the proposed exception has met one of the adaptive management thresholds (refer to Adaptive Management section in **Table 1** of Approved RMP Amendment), no modification would be considered until the causal factor analysis is completed. If the causal factor analysis concludes that development associated with the type of activity seeking the exception is or could contribute to the threshold being met or not recovering, no modification would be granted. If the analysis is inconclusive on cause, modifications could be considered.

6.2.2 Controlled Surface Use for Disturbance Cap: Greater Sage-Grouse PHMA and Little Missouri HMA

Stipulation: Projects that exceed disturbance or density thresholds will need to be redesigned, relocated, or modified to avoid or minimize disturbance to sage grouse habitat or density of facilities in PHMA and in the Little Missouri HMA (refer to Disturbance Cap section in **Table 2** of Approved RMP Amendment). For the Little Missouri HMA, the CSU only applies to the North Dakota portion.

Objective: To limit anthropogenic disturbance and habitat degradation within PHMA, and the North Dakota portions of the Little Missouri HMA.

Waiver: The Authorized Officer, in coordination with the appropriate state agency, may consider and grant a waiver of the stipulation on an existing lease if the area mapped as PHMA when the lease was issued is no longer mapped as such through the appropriate planning process (i.e., plan maintenance or amendment). Prior to waiving the disturbance cap stipulation for a given area, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Exception: Authorized Officer may consider projects on public lands that could result in exceeding the disturbance cap only if the project meets the criteria described in the Disturbance Cap section in Table 2 of the Approved RMP Amendment.

In addition, prior to granting an exception to the disturbance cap stipulation for fluid minerals, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Modification: None

6.2.3 No Surface Occupancy: Greater Sage-Grouse Leks in GHMA

Stipulation: To protect GRSG breeding activities, surface occupancy and use is prohibited within 0.6 miles of the perimeter of active leks and lek complexes in General Habitat Management Areas (GHMA).

Objective: To maintain the integrity of GRSG GHMA and support sustainable populations.

Waiver: The Authorized Officer may consider and grant a waiver to if the area mapped as possessing the attributes protected by the stipulation is determined during coordination with the appropriate state agency to lack those attributes and if the area associated with the site proposed for the waiver is no longer in a GRSG HMA through the appropriate planning process (i.e., plan maintenance or amendment).

Prior to waiving the NSO stipulation for a given area, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Exception: The Authorized Officer may grant an **Exception** only where the proposed action:

(i) Will not have direct, indirect, or cumulative effects that adversely affect GRSG populations or impair the biological function of its habitat; or
(ii) By co-locating the proposed authorization with existing disturbance, no additional impacts would be realized above those already associated with the existing infrastructure, including indirect disturbance to or disruption of adjacent seasonal habitats that would impair their biological function; or
(iii) The project is proposed to be undertaken as an alternative to an off-BLM location in GHMA and will provide a clear conservation gain to GRSG.

To approve this exception, the Authorized Officer, after coordination with the appropriate state agency, must document that the proposed action satisfies at least one of the criteria listed above. If the appropriate state agency does not concur with granting the exception, the Authorized Officer must provide rationale in the Decision Record for how the criteria are met considering the information the state provides.

Prior to granting an exception to an NSO stipulation the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Modification: After documenting the review of available information the Authorized Officer documents, in coordination with the appropriate state authority, that a portion of the NSO area is nonessential, or it is identified through scientific research or monitoring that the existing area is inadequate or overly protective for maintaining the function or utility of the site for the seasonal habitat, life-history, or behavioral needs of the GRSG, including (but not limited to) reproductive display, daytime loafing/staging activities, and nesting.

The Authorized Officer may consider and grant a **modification** to the fluid mineral lease NSO stipulation where an exception is granted, as described under **Exception**, for the primary disturbance (e.g., well pad, compressor station), then a modification providing for surface occupancy of potential associated infrastructure related to the development that are not individually precluded by other GRSG actions (e.g., roads, pipelines, power lines). While the NSO stipulation could be modified for these additional

developments, they must still comply with other GRSG management actions (e.g., mitigation, disturbance cap, minerals/energy density, seasonal restrictions, RDFs.) if an exception to the NSO is granted.

Prior to modifying the area subject to the NSO stipulation, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101). If the area associated with the proposed exception has met one of the adaptive management thresholds, no modifications would be considered until the causal factor analysis is completed.

6.2.4 No Surface Occupancy: Greater Sage-Grouse Crucial Winter Range GHMA

Stipulation: To protect GRSG winter concentration area, surface occupancy and use is prohibited for oil and gas exploration and development in crucial winter range in General Habitat Management Areas (GHMA)

Objective: Maintain the integrity of crucial winter habitat to support GRSG populations during severe winters. Crucial winter range is where a high proportion of the species population is located during severe winter conditions (e.g., maximum snow depths in the deepest 2 of 20 years).

Waiver: The Authorized Officer may consider and grant a waiver to if the area mapped as possessing the attributes protected by the stipulation is determined during coordination with the appropriate state agency to lack those attributes and if the area associated with the site proposed for the waiver is no longer in a GRSG HMA through the appropriate planning process (i.e., plan maintenance or amendment).

Prior to waiving the NSO stipulation for a given area, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

Exception: The AO may grant an **Exception** in Crucial Winter Range only where the proposed action:

(i) Will not have direct, indirect, or cumulative effects that adversely affect GRSG populations or impair the biological function of its habitat; or
(ii) By co-locating the proposed authorization with existing disturbance, no additional impacts would be realized above those already associated with the existing infrastructure, including indirect disturbance to or disruption of adjacent seasonal habitats that would impair their biological function; or
(iii) Would be undertaken at a location as an alternative to a similar action/location occurring on a nearby non-public lands parcel (e.g., due to ownership patterns), and development on the public parcel in question would eliminate impacts on more important and/or limited GRSG habitat (e.g., wet meadows, brood-rearing habitat) on the non-public nearby parcel; this exception must also include measures sufficient to allow the BLM to conclude in its documenting analysis that such benefits will endure for the duration of the proposed action's impacts on public lands (e.g., confirmation of an easement).

To approve this exception, the Authorized Officer, after coordination with the appropriate state agency, must document that the proposed action satisfies at least one of the criteria listed above. If the appropriate state agency does not concur with granting the exception, the Authorized Officer must provide rationale in the Decision Record for how the criteria are met considering the information the state provides

Prior to granting an exception to an NSO stipulation the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101).

If the area associated with the proposed exception has met one of the adaptive management thresholds (hard or soft), no exceptions would be considered until the causal factor analysis is completed.

Modification: After review of available information the Authorized Officer documents, in coordination with the appropriate state authority, that a portion of the NSO area is nonessential, or it is identified through scientific research or monitoring that the existing area is inadequate or overly protective for maintaining the function or utility of the site as crucial winter range seasonal habitat.

The Authorized Officer may consider and grant a **modification** to the fluid mineral lease NSO stipulation where an exception is granted, as described under **Exception**, for the primary disturbance (e.g., well pad, compressor station), then a modification providing for surface occupancy of potential associated infrastructure related to the development that are not individually precluded by other GRSG actions (e.g., roads, pipelines, power lines). While the NSO stipulation could be modified for these additional developments, they must still comply with other GRSG management actions (e.g., mitigation, disturbance cap, minerals/energy density, seasonal restrictions, RDFs.) if an exception to the NSO is granted.

Prior to modifying the area subject to the NSO stipulation, the Authorized Officer shall comply with regulatory public review requirements, if applicable (see 43 CFR 3101). If the area associated with the proposed exception has met one of the adaptive management thresholds (hard or soft), no modifications would be considered until the causal factor analysis is completed.

6.2.5 Controlled Surface Use: Greater Sage-Grouse Seasonal Habitats in GHMA

Stipulation: Surface occupancy and use will be avoided unless the project proponent can clearly demonstrate that the impacts can be adequately addressed through application of the mitigation framework, including conservation actions, needed design features, and offsets/lek buffers. Prior to surface-disturbing or disruptive activities a plan to maintain functionality of breeding, nesting , brood rearing and/or winter habitats for GRSG will be prepared by the proponent and implemented upon approval by the Authorized Officer. The plan shall address how short-term and long-term direct and indirect effects to seasonal habitats will be mitigated based on current science and research.

Objective: To protect the integrity of GRSG GHMA, promote movement and genetic diversity to, and maintain seasonal habitats to support sustainable populations. Plans to address impacts will in general:

- Consider conservation lek buffer distances (e.g Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014) and incorporate Required Design Features from the 2015 RMPAs and other applicable sources to include measures such as:
  - The timing of construction (i.e., no surface use is allowed from December 1 through March 15 in winter range and March 15 - July 15 in breeding and nesting habitats)
  - The timing of operations and maintenance (e.g., limit early morning and evening visits to wells near leks during the breeding season)
  - Locate surface disturbing and disruptive activities, such as linear features, infrastructure related to energy development, tall structures (e.g., communication or transmission towers, transmission lines), and low structures (e.g., fences, rangeland structures), to avoid and minimize impacts to seasonal habitats and movement corridors
  - Mitigate noise and related disruptive activities including those that do not result in habitat loss near leks and winter concentration areas
- Document coordination with, and analysis conducted by, the appropriate state authority (e.g., MT HCP)

Waiver: The Authorized Officer may consider and grant a waiver if the area mapped as possessing the attributes protected by the stipulation is determined during coordination with the appropriate state agency to lack those attributes and if the area associated with the site proposed for the waiver is no longer in a GRSG HMA through the appropriate planning process (i.e., plan maintenance or amendment).

Exception: None (surface occupancy and use would be allowed based on acceptance and adequacy of the plan outlined above).

Modification: The Authorized Officer may modify the area subject to the stipulation if an environmental analysis finds a portion of the GHMA is nonessential or no longer GRSG habitat after coordination with the appropriate state authority.

6.2.6 Controlled Surface Use: Greater Sage-Grouse Little Missouri HMA in Montana

Stipulation: Surface occupancy and use would be allowed with design features to minimize disturbance to GRSG habitat in the Little Missouri Habitat Management Area. This CSU only applies within the Montana portion of the Little Missouri HMA (i.e., the Cedar Creek Anticline).

Objective: To minimize disturbance to GRSG habitat and maximize restoration efforts while allowing for the permitted uses, the project proponent will prepare a plan to maintain functionality of habitats for GRSG. The plan will be prepared prior to surface-disturbing or disruptive activities and implemented upon approval by the Authorized Officer. Plans to address impacts will in general:

- Emphasize collocation and reduction of duplicative infrastructure
- Consider conservation lek buffer distances (e.g. Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014)
- Incorporate Required Design Features such as RDF/BMP appendices from 2015 RMPAs.
- Timing of construction to avoid disruption to seasonal habitats
- Timing of operations and maintenance to minimize disruption to seasonal habitats
- Placing of linear features, related infrastructure, and surface disturbance in relation to leks.
- Noise and related disruptive activities including those that do not result in habitat loss
- Document coordination with, and analysis conducted by, the appropriate state authority (e.g., MT HCP)

The BLM may approve actions in the Little Missouri HMA that are within the applicable lek buffer distance identified above only if:

- The BLM determines that impacts to GRSG and its habitat are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing authorizations);
- Any residual impacts within the lek buffer-distances are addressed through compensatory mitigation measures sufficient to ensure a no net habitat loss as outlined in the mitigation framework.

Waiver: The Authorized Officer may consider and grant a waiver to if the area mapped as possessing the attributes protected by the stipulation is determined during coordination with the appropriate state authority to lack those attributes and if the area associated with the site proposed for the waiver is no longer in a GRSG HMA through the appropriate planning process (i.e., plan maintenance or amendment).

Exception: None (surface occupancy and use would be allowed based on acceptance and adequacy of the plan outlined above.).

Modification: The AO may modify the area subject to the stipulation if an environmental analysis finds a portion of the Little Missouri HMA is nonessential or no longer GRSG habitat after coordination with the appropriate state authority.

6.2.7 Controlled Surface Use: Greater Sage-Grouse CHMA

Stipulation: Surface occupancy and use will be avoided unless the project proponent can clearly demonstrate that the impacts to potential stopover sites can be adequately mitigated. Prior to such

activities a plan to mitigate impacts will be prepared by the proponent and implemented upon approval by the Authorized Officer.

Objective: To maintain the integrity of GRSG habitat and provide habitat for the movement and genetic diversity to support connected populations. Plans to address impacts will in general:

- Consider conservation lek buffer distances (e.g. Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014)
- Incorporate Required Design Features (See RDF/BMP appendices).
- Timing of construction to avoid disruption to movements between seasonal habitats
- Avoidance of placing of linear features, related infrastructure, and surface disturbance in existing or potential sagebrush ecosystems.
- Noise and related disruptive activities during spring and fall movement periods

The BLM may approve actions in CHMA if the BLM determines, in coordination with the appropriate state authority, that the proposed action will meet the objectives for stopover sites, through findings such as:

- The BLM determines that impacts to potential GRSG stopover sites are minimized such that the project will cause minor or no new disturbance (ex. co-location with existing disturbance);
- Any residual impacts are addressed through compensatory mitigation measures as outlined in the mitigation framework.

Waiver: The Authorized Officer may consider and grant a waiver to if the area mapped as possessing the attributes protected by the stipulation is determined during coordination with the appropriate state authority to lack those attributes and if the area associated with the site proposed for the waiver is no longer in a GRSG HMA through the appropriate planning process (i.e., plan maintenance or amendment).

Exception: None (surface occupancy and use would be allowed based on acceptance and adequacy of the plan outlined above).

Modification: The Authorized Officer, in coordination with the appropriate state authority, may modify the boundaries of the stipulated area if portions of the leasehold are no longer GRSG habitat and future use by GRSG is unlikely.

6.2.8 Timing Limitation: Greater Sage-Grouse HMAs

Stipulation: To protect GRSG populations utilizing important seasonal habitats, no surface use is allowed from December 1 through March 15 in winter range, March 15 - July 15 in breeding and nesting habitats and during migratory periods for stopover sites. This stipulation does not apply to operation and maintenance of production facilities.

Objective: The protection of leks, breeding and nesting habitat (e.g., 3.1 miles from leks), winter range, and stopover sites necessary for the long-term maintenance of GRSG populations.

Waiver: The Authorized Officer may, in coordination with the appropriate state authority, consider and grant a waiver of the stipulation on an existing lease if the area that was mapped as a GRSG habitat management area (regardless of type) when the lease was issued is no longer mapped as such through the appropriate planning process (i.e., plan maintenance or amendment).

Exception: The Authorized Officer, in coordination with the state wildlife agency and other appropriate state authorities, may consider and provide temporary relief from seasonal constraints by granting an exception after documenting the review of available information, including best available science, associated with the site proposed for the exception. While the BLM considers information from all sources, the state wildlife agency can provide information directly associated with GRSG use, including, if available, whether

GRSG populations are not using the seasonal habitat during that year's seasonal life cycle period. Based on this information and recommendation, and documented variability in seasonal conditions (e.g., early/late spring, long/heavy winter), use patterns, or other applicable information the Authorized Officer may consider a one-time exception if development associated with it will not have direct/indirect negative impacts on GRSG populations and/or their habitat.

Modification: The BLM can grant modifications to seasonal restrictions if the BLM, in coordination with the state wildlife agency and other appropriate state authorities, on a case-by-case basis, determines that granting the modification would not adversely impact the population being protected. The Authorized Officer may consider and grant a modification to the dates and areas associated with seasonal timing restrictions after documenting the review of available information associated with the site proposed for the modification based on one of the criteria described below.

1) The geographic and temporal conditions demonstrate that any modification (shortening/extending seasonal timeframes) is justified on the basis that it serves to better protect or enhance GRSG and its habitat than if the strict application of seasonal timing restrictions are implemented. Under this scenario, modifications can occur if one or more of the following conditions can be documented:
    a. A proposed authorization is expected to have beneficial or neutral impacts on GRSG and its habitat.
    b. Topography or other factors eliminate direct and indirect impacts from visibility and audibility to GRSG and its habitat.
    c. There are documented local variations that indicate the seasonal life cycle periods are different than presented.
2) Modifications are needed to address an immediate public health and/or safety concern in a timely manner (e.g., maintaining a road impacted by flooding).

Appendix 7

Glossary

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Appendix 7. Glossary

Acquisition. Acquisition of lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed through exchange, Land and Water Conservation Fund purchases, donations, or receipts from the Federal Land Transaction Facilitation Act sales or exchanges.

Adaptive management. A type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. Results are used to modify management policy, strategies, and practices.

Adjacent (rights-of-way). Installation of authorized improvements parallel, near, or next to existing authorized rights-of-way.

Allocation. The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

Area of Critical Environmental Concern (ACEC). Areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. The identification of a potential ACEC shall not, of itself, change or prevent change of the management or use of public lands.

Authorized Officer. Any employee of the BLM to whom authority has been delegated to perform the duties described.

Best management practices (BMPs). A suite of techniques that guide or may be applied to management actions to aid in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a planning decision unless the plans specify that they are mandatory.

Co-location (communication sites). The installation of new equipment/facilities on or within or adjacent to existing authorized equipment/facilities or within a communication site boundary as designated in the Communication Site Plan.

Co-location (electrical lines). Installation of new rights-of-way adjacent to current ROWs boundaries, not necessarily placed on the same power poles.

Co-location (other rights-of-way). Installing new authorized ROWs within or on the existing footprint of an approved ROW boundary.

Communication site. Sites that include broadcast types of uses (e.g., television, AM/FM radio, cable television, broadcast, translator) and non-broadcast uses (e.g., commercial or private mobile radio service, cellular telephone, microwave, local exchange network, passive reflector).

Controlled surface use (CSU). CSU is a category of moderate constraint stipulations that allows some use and occupancy of public land while protecting identified resources or values and is applicable to fluid mineral leasing and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads). On BLM-

administered lands, CSU areas are open to fluid mineral leasing but the stipulation allows the BLM to require special operational constraints, or the activity can be shifted more than 200 meters (656 feet) to protect the specified resource or value.

Cumulative Impact (Effect). The impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Easement. A right afforded a person or agency to make limited use of another's real property for access or other purposes.

Ecological site. A distinctive kind of land with specific characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation.

Ecological site description. A report that provides detailed information about an ecological site.

Exchange. A transaction whereby the federal government receives land or interests in land in exchange for other land or interests in land.

Existing habitat. Habitat that currently supports greater sage-grouse, even if not currently occupied. This can include seasonal habitats, such as wintering, nesting and brood-rearing**.**

Exploration. Active drilling, geophysical operations, surface sampling and trenching, or small scale mining or similar activities, to: a. Determine the presence of the mineral resource; or b. Determine the extent of the reservoir or mineral deposit.

Federal mineral estate. Subsurface mineral estate owned by the US and administered by the BLM. Federal mineral estate under BLM jurisdiction is composed of mineral estate underlying BLM lands, tribal lands, privately owned lands, and state-owned lands.

Fluid minerals. Oil, gas, coal bed natural gas, and geothermal resources.

Fully Processed Grazing Authorization. A grazing permit or lease that has been issued in accordance with all applicable laws, regulation, and policy including the NEPA, Endangered Species Act (ESA), and decision processes provided in 43 CFR 4160.

Geophysical exploration. Efforts to locate or better define mineral or oil and gas deposits, using geophysical methods such as seismic refraction, electrical resistivity, induced magnetism, or other methods.

Geothermal energy. Natural heat from within the Earth captured for production of electric power, space heating, or industrial steam.

Habitat. Areas that currently provide GRSG resources (such as space, food, cover, and water) and environmental conditions (such as temperature, precipitation, presence or absence of predators and competitors) that promote occupancy of sage-grouse during a particular stage of its annual life cycle (e.g., breeding, nesting) and allows for them to survive and reproduce.

> **Nesting habitat.** Areas with protective grass and high lateral shrub cover where hens nest, typically under sagebrush shrubs.
>
> **Early brood-rearing habitat.** Upland sagebrush sites relatively close to nest sites, typically characterized by high species richness with an abundance of forb sand insects, where sage-grouse hens raise young chicks (<21 days).

Winter habitat. Sagebrush habitats that provide access to sagebrush above the snow for all food and cover requisite needs.

Habitat Assessment Framework. The Habitat Assessment Framework (HAF) is a tool to measure the suitability of GRSG habitat at multiple scales.

Mid-scale HAF areas. Areas conceptually linked to GRSG dispersal capabilities in population and subpopulation areas as described by Connelly and others (2004). Mid-scale HAF delineations also conceptually provide the life requisite space for GRSG dispersal, allowing for migration movements based on the following key inputs: availability of sagebrush habitat, size and number of habitat patches, connectivity of habitat patches, characteristics of linkage areas between patches, landscape matrix and edge effects, and anthropogenic disturbances.

Fine-scale HAF areas. Fine-scale HAF delineations generally describe the extent of all seasonal use areas used by local populations. Fine-scale areas include suitable habitats within home range areas that have contiguous mosaics of sagebrush shrublands or grassland/sagebrush connecting seasonal use areas.

Indicators. Factors that describe resource condition and change and can help the BLM determine trends over time.

Invasive Species (Invasive Plant Species, Invasives). An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The species must cause, or be likely to cause, harm, and be exotic to the ecosystem it has infested before considered invasive.

Leasable minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. These include energy-related mineral resources such as oil, natural gas, coal, and geothermal, and some nonenergy minerals, such as phosphate, sodium, potassium, and sulfur. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lease. Section 302 of the Federal Land Policy and Management Act of 1976 provides the BLM's authority to issue leases for the use, occupancy, and development of public lands. Leases are issued for purposes such as a commercial filming, advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, native or introduced species harvesting, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and nonirrigation facilities. The regulations establishing procedures for processing these leases and permits are found in 43 CFR 2920. (BLM)

Lease stipulation. A modification of the terms and conditions on a standard mineral lease form established at the time of the lease sale.

Lek. The BLM is adopting the Western Association of Fish and Wildlife Agencies (WAFWA) lek definitions (Cook et al., 2022)[1].

Lek. A lek is a traditional location where at least 2 male greater sage-grouse congregate during at least 2 springs within a 10-year period to perform their strutting display and opportunistically breed with females. Although males are territorial on leks and occupy an area, not a point, the representative location for the lek is the estimated or calculated center of the display activity. The

[1] Note that the WAFWA definition of lek does not influence how BLM estimates buffers for protection of leks from disturbance (i.e., lek buffers can be measured from the perimeter of the area where males display when perimeters are known and the approach is supported by state wildlife agencies).

'lek' is the standard reporting and analysis unit for evaluating population status and long-term trends.

Active lek. A lek that has more than 2 males counted during two or more lek counts within the last 10 years.

Inactive lek. A lek at which all observations within the last 10 years have been less than 2 males and that has had at least 2 males recorded during a lek count between 11 to 20 years ago.

Pending Active lek. A lek with one observation of at least 2 males in the last 10 years and at least one observation of at least 2 males more than 10 years ago.

Sub-lek. A sub-lek is similar to a lek in most respects, except that its location represents an actual activity center for a specific year or series of years while a lek can represent multiple sub-leks over an extended number of years. Sub-leks are generally ≤¼ the average inter-lek distance from other sub-leks included within the same lek. In relatively static situations, there may be only one sub-lek within a lek. The sub-lek is not used to evaluate population status and long-term trends but may be used to examine breeding behavior, habitat use, or other aspects of natural history

Undetermined Lek. A location where male sage-grouse are displaying that has not been documented in multiple years and does not meet the definition of a lek. Sage-grouse may spontaneously display in an alternate location that is not maintained through time; therefore, any undetermined leks should be verified in subsequent breeding seasons.

Locatable minerals. Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale (17 Stat. 19-96).

Major Rights of Way. (Refer to definition in Rights of Way)

Mineral. Any naturally formed inorganic material, solid or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground. Under federal laws, considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and saleable (subject to the Materials Act of 1947).

Mineral entry. The filing of a claim on public land to obtain the right to any locatable minerals it may contain.

Mineral estate. The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

Mining claim. A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

Minor Rights of Way. (Refer to definition for Rights of Way).

Mitigation. Includes specific means, measures, or practices that could reduce, avoid, or eliminate adverse impacts. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action; minimizing the impact by limiting the degree of magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitation, or restoring the affected environment; reducing or

eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

Modification. A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied.

Neighborhood Cluster. Represents a GRSG population unit and includes local aggregations of leks and seasonal habitats used by birds attending those leks based on state wildlife agency and research data.

No surface occupancy (NSO). A major constraint where use or occupancy of the land surface for fluid mineral exploration or development and all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads) are prohibited to protect identified resource values. Areas identified as NSO are open to fluid mineral leasing, but surface occupancy or surface-disturbing activities associated with fluid mineral leasing cannot be conducted on the surface of the land. Access to fluid mineral deposits would require horizontal drilling from outside the boundaries of the NSO area.

Nonenergy leasable minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. Nonenergy minerals include resources such as phosphate, sodium, potassium, and sulfur.

Non-habitat. Areas within the historical distribution of GRSG that are not occupied and are not capable of supporting GRSG or necessary habitats to support GRSG, and do not have the potential to provide habitat in the foreseeable future (< 100 years). GRSG may occasionally use these areas (e.g., migration), but these areas do not provide the necessary resources to support GRSG seasonally or year-round.

Non-routine maintenance. Activities include realigning, upgrading, rebuilding, recontouring, or replacing a segment of or an entire powerline facility (e.g., change to higher voltage, changing from wood to metal poles, significantly increasing the pole height, adding additional lines, or change from above ground to buried). When non-routine activities are proposed, the BLM requires the holder to receive prior written approval. In certain circumstances, after further review and approval by the Authorized Officer, non-routine activities may be handled under established approaches as defined in the approved operation and maintenance plan or agreement. In some cases, an amendment to the authorization may be needed, in which case the BLM should ensure the holder submits an application to amend the authorization on Form SF-299. BLM approval must comply with the National Environmental Policy Act (NEPA) and other applicable law, which may require additional environmental analysis and studies or surveys.

Potential habitat. An area that is currently unoccupied by GRSG but has the potential for occupancy in the foreseeable future (< 100 years)**.** These areas are capable of supporting GRSG habitats based on soil types, climate, etc., and can include areas of habitat previously disturbed but that can be restored to GRSG habitats through either natural succession or human intervention.

Required design features (RDFs). Means, measures, or practices intended to reduce or avoid adverse environmental impacts. A suite of features that would establish the minimum specifications for certain activities (i.e., water developments, mineral development, and fire and fuels management) and mitigate adverse impacts. These design features would be required to provide a greater level of regulatory certainty than through implementation of best management practices. In general, the design features are accepted practices that are known to be effective when implemented properly at the project level.

Resource Management Plan Designated Corridor. A corridor designated through a Resource Management Plan Record of Decision in compliance with Section 202 of the Federal Land Policy and Management Act (FLPMA).

Rights-of-way (ROW). Public lands authorized to be used or occupied for specific purposes pursuant to a right-of-way grant, which are in the public interest and which require ROWs over, on, under, or through such lands. ROWs may be issued for linear features (pipelines, powerlines, communication cable, roads, canals, access, etc.) or for sites (communication towers, airports, reservoirs, pumping stations, power generating facilities, etc.). For BLM GRSG Management ROWs are divided into major or minor depending on possible level of impact to GRSG (see below). For example, ROWs for buried linear features with limited to no surface disturbance are minor, but high voltage overhead transmission lines are major. Other projects may depend on the specific development plan and location, connected actions, and will require a determination by the BLM (refer to ROW management direction in Chapter 2, Table 2-2 and 2-3). For example, to use federal pore space for carbon sequestration would be minor, however, ROWs for associated and/or connected actions such as surface facilities to support carbon sequestration could be major depending on the scope of surface disturbance and infrastructure.

> **Major ROW**. Major ROW projects include transmission lines > 100kv and distribution pipelines > 24" diameter but may also include smaller electrical transmission and/or distribution lines and pipelines, as well as other ROW projects that require large distances, density or footprints, with high levels of activity or surface disturbance. In addition, major ROW sites may contain multiple types of above and below ground features leading to a high density of infrastructure, or many tall structures.
>
> **Minor ROW**. Minor/Other ROW Projects include typical distribution, small transmission facilities, or low volume gathering features that create minimal surface disturbance. These types include but are not limited to local roads, pipelines, powerlines, and small communication sites.

Riparian Area. A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas (See BLM Manual 1737). Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

Split estate. This is the circumstance where the surface of a particular parcel of land is owned by a different party than the minerals underlying the surface. Split estates may have any combination of surface/subsurface owners: federal/state; federal/private; state/private; or percentage ownerships. When referring to the split estate ownership on a particular parcel of land, it is generally necessary to describe the surface/subsurface ownership pattern of the parcel.

Saleable Minerals. Minerals that may be disposed of through sales and free use permits under the Materials Act of 1947, as amended. Included are common varieties of sand, stone, gravel, and clay (See also Mineral Materials).

Season of Use. A livestock grazing permit term and condition identifying the time during which livestock graze a given area to achieve management and resource condition objectives.

Stipulation (fluid minerals). A provision that modifies standard fluid mineral lease terms and conditions in order to protect other resource values or land uses and is attached to and made a part of individual lease requirements at the time the lease is issued. Once a mineral lease is issued, the applied stipulations cannot generally be changed or altered. Exceptions, modifications, or waivers may be granted under certain conditions outlined in the LUP. Typical lease stipulations include No Surface Occupancy (NSO), Timing Limitations (TL), and Controlled Surface Use (CSU), and Protection of Survey Corner and Boundary Line Markers. Lease stipulations are developed through the land use planning (RMP) process.

Surface Discharge. The release of produced water onto the unconfined land surface or into an existing drainage system.

Surface Disturbing or Disruptive Activities. For the purposes of activity approval and analyses, as well as application of mitigation measures, surface-disturbing and disruptive activities are defined below. Activities that bury or involve subsurface features are counted as surface disturbing if they have a long-term impact to vegetation or soils (e.g., remaining impacts after construction and/or require substantial restoration). Projects that modify existing facilities/structures should be evaluated for if the net result is an increase or decrease in overall surface disturbance and disruption (e.g., burying a powerline may result in minor disturbance but remove disruption)

> **Surface-Disturbing Activities.** The physical disturbance or removal of land surface or vegetation (where longer-term vegetation impacts exist, e.g., beyond the next growing season). Some examples of surface-disturbing activities include construction of roads, well pads, larger pipelines, power lines, pits and reservoirs, facilities, recreation sites, and mining. Vegetation renovation treatments that involve soil penetration or substantial mechanical damage to plants (plowing, chiseling, and chopping, for example) are also surface-disturbing activities.
>
> **Disruptive Activities.** Activities associated with resource that are likely to alter the behavior of, displace, or cause excessive stress to wildlife populations occurring at a specific location or time. In this context, disruptive activities refer to those actions that alter behavior or displace wildlife such that reproductive success is negatively affected or the physiological ability to cope with environmental stress is compromised. Examples of disruptive activities are noise, vehicle traffic, predator subsidies (through trash, perches, etc.) or other persistent/long-term human presence regardless of the activity. The term is used in conjunction with protecting wildlife during crucial life stages (e.g., breeding, nesting, and birthing), although it could apply to any resource value. This definition is not intended to prohibit all activities or authorized uses. For example, emergency activities (e.g., fire suppression and search and rescue), rangeland monitoring, routine maintenance associated with an approved authorization, dispersed recreation (e.g., hunting and hiking) and sustainable livestock grazing are not considered surface-disruptive activities.

Surface Management Agency (SMA). Depicts surface estate Federal land for the United States and classifies this land by its active Federal surface managing agency.

Timing limitation (TL). The TL stipulation, a moderate constraint, is applicable to fluid mineral leasing, all activities associated with fluid mineral leasing (e.g., truck-mounted drilling and geophysical exploration equipment off designated routes, construction of wells and/or pads), and other surface-disturbing activities (i.e., those not related to fluid mineral leasing). Areas identified for TL are closed to fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames. This stipulation does not apply to operation and basic maintenance activities, including associated vehicle travel, unless otherwise specified. Construction, drilling, completions, and other operations considered to be intensive in nature are not allowed. Intensive maintenance, such as workovers on wells, is not permitted. TLs can overlap spatially with NSO and CSU, as well as with areas that have no other restrictions.

Transmission line. A set of electrical current conductors, insulators, supporting structures, and associated equipment used to move large quantities of power at high voltage, usually over long distances (e.g., between a power plant and the communities that it serves).

Transmission corridor. An electric or pipeline transmission corridor is a route approved on public lands, in a BLM or other federal agency land use plan, as a location that may be suitable for the siting of electric or pipeline transmission systems.

Utility corridor. Tract of land varying in width forming passageway through which various commodities such as oil, gas, and electricity are transported.

Utility-scale solar. Solar projects with nameplate capacity (theoretical output registered with authorities) of 5 megawatt (MW) or higher that deliver electricity to the electricity transmission grid.

Utility-scale wind. The U.S. Department of Energy defines utility-scale wind projects as land-based and offshore projects larger than 1 megawatt (MW) (Wind Energy Technologies Office, WINDExchange, Office of Energy Efficiency & Renewable Energy, U.S. Department of Energy).

Valid existing rights. Documented, legal rights or interests in the land that allow a person or entity to use said land for a specific purpose and that are still in effect. Such rights include but are not limited to fee title ownership, mineral rights, rights-of-way, easements, permits, licenses and adjudicated RS 2477 or RS 2339. Such rights may have been reserved, acquired, leased, granted, permitted, or otherwise authorized over time.

Watershed. The area of land, bounded by a divide, that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel (Dunne and Leopold, 1978), or to a lake, reservoir, or other body of water. Also called drainage basin or catchment

West Nile Virus. A virus that is found in temperate and tropical regions of the world and most commonly transmitted by mosquitoes. West Nile virus can cause flu-like symptoms in humans and can be lethal to birds, including Greater Sage-Grouse.

Wetlands. Those areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mudflats, and natural ponds.

Withdrawal. Withdrawals are used to transfer jurisdiction of management of public lands to other federal agencies.

Appendix 8

References

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Appendix 8. References

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Appendix 9

US Fish and Wildlife Service Section 7
Concurrence Memo

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
334 Parsley Blvd.
Cheyenne, Wyoming 82007

In Reply Refer to:
FWS/R6/2025-0029235

Memorandum

To: Frank Quamen, Division Chief, Division of Wildlife, Aquatics, and Environmental Protection, Bureau of Land Management, Headquarters

From: Tyler Abbott, Field Supervisor, Wyoming Ecological Services Field Office

TYLER ABBOTT
Digitally signed by TYLER ABBOTT
Date: 2025.10.22 08:39:25 -06'00'

Subject: Informal Consultation on the Bureau of Land Management's Greater Sage-grouse Rangewide Planning Changes to Proposed Resource Management Plan Amendments for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming

This memorandum responds to the Bureau of Land Management's (BLM) September 10, 2025 email and attached amendment to the Biological Assessment (BA) issued by BLM on December 6, 2024 for the Greater Sage-Grouse Proposed Resource Management Plan Amendment (RMPA) and Final Environmental Impact Statement (FEIS). The BLM is requesting the Fish and Wildlife Service's (Service) concurrence that the proposed changes to management actions, as described in their September 2, 2025 Greater Sage-grouse Rangewide Planning Changes to Proposed RMPA for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming document "may affect, but are not likely to adversely affect" federally-listed or proposed species, non-essential experimental populations, or designated or proposed critical habitats that occur on BLM-administered lands in portions of the states of California, Idaho, Montana, Nevada, North Dakota, South Dakota, Utah, and Wyoming (see Species and Critical Habitat List, Attachment A).

At a programmatic level, BLM evaluated the impacts of the proposed changes in management direction to be applied for the enhancement of Greater Sage-grouse (GRSG) conservation in portions of the aforementioned states, on listed species and their critical habitats that are known to, or could, occur within BLM-administered lands. The Service provides this response pursuant to section 7(a)(2) of the Endangered Species Act of 1973 (ESA), as amended.

Previous Greater sage-grouse Resource Plan Amendment Section 7(a)(2) Consultations

On January 8, 2025, the Service completed an informal consultation on the BLM's GRSG Proposed RMPA and FEIS. This consultation applies only to the states of Colorado and Oregon, as those states issued final Records of Decision (ROD) on January 15, 2025, and no further changes to management actions are planned in the near term. The remaining RODs for Idaho,

Montana/Dakotas, Nevada/California, Utah, and Wyoming were not finalized, and are proposed to include the changes described in the BLM's September 2, 2025 Greater Sage-grouse Rangewide Planning Changes to Proposed RMPA for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming document. These proposed changes to management actions are the subject of the current consultation.

In 2015, BLM signed RODs for the Rocky Mountain and Great Basin regions Approved RMPAs addressing conservation measures for the GRSG and its habitat. In general, land use planning efforts such as these are best described as a strategy for completing site-specific actions; the strategy itself has no effect on listed species or critical habitats that can be meaningfully evaluated. The Service subsequently consulted on implementation of these RMPAs on a state-by-state basis, and concurred with BLM's determinations for the states of California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, and Wyoming. Due to potential conflicts between habitat management objectives for GRSG and those for the Utah prairie dog (UPD; *Cynomys parvidens*), for the state of Utah, the Service determined that the proposed action may affect, and was likely to adversely affect, the UPD. Formal consultation was completed, within which the Service provided conservation measures (Attachment B) to be implemented in instances where UPD and GRSG habitat management goals were in conflict. These conservation measures remain in place for the proposed 2025 Utah ROD.

Description of the Action

The BLM worked with state wildlife agencies to adjust habitat management area alignments from the 2015 RMPAs based on new scientific information and documentation of GRSG use within the 10 western states included in the Greater Sage-Grouse Proposed RMPA and FEIS. Habitat management areas are characterized as Priority Habitat Management Area (PHMA) or General Habitat Management Area (GHMA), with PHMA having a higher protected status. Potential impacts to listed species and critical habitats were analyzed within the revised PHMA and GHMA boundaries, with consultation specifically requested by BLM on the following proposed management direction changes:

- Adjustments to habitat management areas, including a subset of PHMA with suggestions for limited exceptions for fluid energy development to provide additional conservation to GRSG habitats.
- Managing livestock grazing to meet Land Health Standards vs. strict GRSG habitat objectives.
- Where appropriate, directing wild horse gathers inside of PHMA.
- Identifying PHMA as exclusion for renewable energy development.
- Directing any new rights of way (ROW) outside of PHMA.
- Improving habitat condition to reduce the risk of GRSG predation.
- Implementing a multi-scale assessment of GRSG vs. managing to specific habitat objectives.
- Changing the scale for determining disturbance caps.
- Emphasizing the mitigation hierarchy and, if needed, ensuring consistency with State requirements for compensatory mitigation.

- Adjusting how adaptive management is calculated, both in technique and scale to allow for more biologically meaningful assessments.

In addition to (and in some instances, in lieu of) the management direction changes listed above and analyzed in the Service's January 8, 2025 informal consultation, the BLM requests consultation on the following September 2, 2025 proposed changes to management actions:

- Elimination of the PHMA with limited exceptions subset of the PHMA habitat allocation.
- Updating GHMA and PHMA boundaries in Utah.
- Changing the nesting habitat benchmark in Idaho and California/Nevada from a quantitative standard to a qualitative standard to account for habitat variability across the states.
- Changing the allocation for major rights of way in GHMA in Nevada from avoidance to open.
- Further adjustments to how adaptive management is calculated, both in technique and scale to allow for more biologically meaningful assessments.

These changes are to management directions only and inform how future on-the-ground actions will be framed; there are no on-the-ground actions directly implemented or authorized by these changes. As noted in the original BA and its amendment, any future project that implements these changed management directions at the individual Resource Management Plan (RMP) level will require site-specific Section 7(a)(2) consultation for any potentially affected species and/or designated critical habitats.

Conservation Measures

As noted above, the 2015 RMPA consultations resulted in the development of conservation measures (Attachment B) for the UPD in Utah to address potential conflicts between GRSG and UPD management. The 2025 RMPA will not change two of the three sets of management directions—each associated with specific project types—that prompted the need for the formal consultation in 2015. The third set of 2015 management directions addressed rights-of-way (ROW) management; the 2025 proposal will provide additional protections for GRSG and sagebrush habitats in ROWs by changing most of the areas of overlap (PHMA) from *avoidance* for new ROWs, to *exclusion*, which may reduce the threat of habitat modification for both UPD and GRSG. In the 2025 RMPA, BLM is committing to comply with the conservation measures in full and will conduct site-specific Section 7(a)(2) consultations for actions that may affect UPD. The BLM will continue to implement other measures to reduce impact to UPD from their key threats.

Conclusion

The BLM's programmatic action implements a program designed to enhance GRSG conservation through the amendment of existing RMPs in 8 states by implementing changes in management direction for 10 different allocative directions. Prior to the implementation of changes in management direction at the RMP level, BLM field offices will use the Service's Information for Planning and Consultation website (https://ipac.ecosphere.fws.gov/) to get the

most up-to-date species and critical habitat list for their project area. If BLM makes a "may affect" determination for listed species or critical habitats, BLM will initiate consultation with the Service. Consultation will include a site-specific analysis of potential effects to listed species or critical habitat from proposed actions associated with changes in management direction. During local level consultations, the BLM will be able to determine more specifically which species might be impacted by the proposed changes in management direction, the nature and extent of potential impacts, and if additional conservation measures are needed to reduce potential adverse effects to these species. Additionally, BLM does not need to reinitiate at the programmatic level for newly proposed or listed species or critical habitat, as that will be done at the local (RMP) level.

Based on BLM's commitment to implement conservation measures identified in their original BA and its amendment, and the requirement for site-specific consultations prior to the implementation of any management direction changes, the Service concurs that the proposed action is not likely to adversely affect threatened or endangered species, proposed species, non-essential experimental populations or designated or proposed critical habitats under the jurisdiction of the Service. If any subsequent action falls outside of the proposed changes in management direction to benefit GRSG conservation, BLM should evaluate the potential need to initiate formal consultation on that particular action, as it would fall outside the scope of this programmatic consultation.

This concludes informal consultation on BLM's Greater Sage-grouse Rangewide Planning Changes to Proposed RMPA for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming document. In accordance with 50 CFR § 402.16, reinitiation of consultation is required and shall be requested by BLM or the Service where discretionary federal involvement or control over the action has been retained or is authorized by law and: (1) if new information reveals effects of the action that may affect listed species or critical habitat in a manner to an extent not previously considered; or (2) if the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this concurrence letter.

If you have any questions or require additional information, please contact Dawn Davis (dawn_davis@fws.gov) or John Hughes (john_hughes@fws.gov).

Attachment A: Species and Critical Habitat List
Attachment B: Utah prairie dog conservation measures

Attachment A. Listed Species and Critical Habitat Analyzed for the Bureau of Land Management's Greater Sage-grouse Rangewide Planning Changes to Proposed RMPA for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming document.

Species	Status[1]	Critical Habitat?	Determination
Mammals			
Black-footed ferret (*Mustela nigripes*)	E, EXPN	No	Not likely to adversely affect (E) Not likely to jeopardize (EXPN)
Canada lynx (*Lynx canadensis*)	T	Yes	Not likely to adversely affect
Gray wolf (*Canis lupus*)	E, EXPN	Not in action area	Not likely to adversely affect (E) Non-jeopardy (EXPN)
Grizzly bear (*Ursus arctos horribilis*)	T, EXPN	Yes	Not likely to adversely affect (T) Not likely to jeopardize (EXPN)
North American wolverine (*Gulo gulo luscus*)	T	No	Not likely to adversely affect
Northern long-eared bat (*Myotis septentrionalis*)	E	No	Not likely to adversely affect
Preble's meadow jumping mouse (*Zapus hudsonius prebei*)	T	Yes	Not likely to adversely affect
Tricolored bat (*Perimyotis subflavus*)	P, E	No	Not likely to adversely affect
Utah prairie dog (*Cynomys parvidens*)	T	No	Not likely to adversely affect
Birds			
California condor (*Gymnogyps californianus*)	E, EXPN	Yes	Not likely to adversely affect (E) Not likely to jeopardize (EXPN)
Mexican spotted owl (*Strix occidentalis lucida*)	T	No	Not likely to adversely affect
Piping plover (*Charadrius melodus*)	T	Yes	Not likely to adversely affect
Rufa red knot (*Calidris canutus rufa*)	T	Yes	Not likely to adversely affect
Southwestern willow flycatcher (*Empidonax trailii extimus*)	E	Yes	Not likely to adversely affect
Whooping crane (*Grus americanus*)	E, EXPN	Yes	Not likely to adversely affect (E) Not likely to jeopardize (EXPN)
Western yellow-billed cuckoo (Western DPS; *Coccyzus americanus*)	T	Yes	Not likely to adversely affect
Reptiles			
Northwestern pond turtle (*Actinemys marmorata*)	P, T	No	Not likely to adversely affect
Insects			
Carson wandering skipper (*Pseudocopaeodese unus obscurus*)	T	No	Not likely to adversely affect
Regal fritillary (*Speyeria idalia*)	P, T	No	Not likely to adversely affect

[1] E – Endangered, T – Threatened, P – Proposed, EXPN – Experimental, Non-essential

Species	Status[1]	Critical Habitat?	Determination
Silverspot (*Speyeria nokomis nokomis*)	T	No	Not likely to adversely affect
Mollusks/Snails			
Banbury Springs limpet (*Idaholanx festi*)	E	No	Not likely to adversely affect
Bruneau hot springsnail (*Pyrgulopsis bruneauensis*)	E	No	Not likely to adversely affect
Snake River Physa snail (*Physa natricina*)	E	No	Not likely to adversely affect
Amphibians			
Dixie Valley toad (*Anaxyrus williamsi*)	E	Yes	Not likely to adversely affect
Wyoming toad (*Bufo baxteri*)	E	No	Not likely to adversely affect
Fish			
Big springs spinedace (*Lepidomena milliispinis*)	T	Yes	Not likely to adversely affect
Bonytail (*Gila elegans*)	E	Yes	Not likely to adversely affect
Bull trout (*Salvelinus confluentus*)	T	Yes	Not likely to adversely affect
Chinook salmon (Snake River spring/summer run; *Onorhynchus tshawytsha*)	T	Yes	Not likely to adversely affect
Chinook salmon (Snake River fall run; *Onorhynchus tshawytsha*)	T	Yes	Not likely to adversely affect
Clover Valley speckled dace (*Rhinichthyus osculus oligoporus*)	E	No	Not likely to adversely affect
Colorado pikeminnow (*Ptychocheilus lucius*)	E	Yes	Not likely to adversely affect
Cui-ui (*Chasmistes cujus*)	E	No	Not likely to adversely affect
Desert dace (*Eremichthys across*)	T	Yes	Not likely to adversely affect
Greenback cutthroat trout (*Onchorhynchus clarki ssp. Stomais*)	T	No	Not likely to adversely affect
Hiko White River springfish (*Crenichthys baileyi grandis*)	E	Yes	Not likely to adversely affect
Humpback chub (*Gila cypha*)	T	Yes	Not likely to adversely affect
Hutton tui chub (*Gila bicolor*)	E	No	Not likely to adversely affect
Independence Valley speckled dace (*Rhinichtys osculus*)	E	No	Not likely to adversely affect
Kendall warm springs dace (*Rhinichyts osculus thermalis*)	E	No	Not likely to adversely affect
Lahontan cutthroat trout (*Onorhynchochos clarkia henshawi*)	T	No	Not likely to adversely affect
Lost River sucker (*Deltistes luxatus*)	E	Yes	Not likely to adversely affect

[1] E – Endangered, T – Threatened, P – Proposed, EXPN – Experimental, Non-essential

Species	Status[1]	Critical Habitat?	Determination
Pahranagat roundtail chub (*Gila robusta jordani*)	E	No	Not likely to adversely affect
Pahrump poolfish (*Empetrichthys latos*)	E	No	Not likely to adversely affect
Pallid sturgeon (*Scaphirhynchus albus*)	E	No	Not likely to adversely affect
Railroad Valley springfish (*Crenichthys nevada*)	T	Yes	Not likely to adversely affect
Razorback sucker (*Xyrauchen texanus*)	E	Yes	Not likely to adversely affect
Shortnose sucker (*Chasmistes breviirostris*)	E	Yes	Not likely to adversely affect
Warner sucker (*Catostomus warnerensis*)	T	Yes	Not likely to adversely affect
White River spinedace (*Lepidomena albivalis*)	E	Yes	Not likely to adversely affect
Whiteriver springfish (*Crenichtys baileyi baileyi*)	E	Yes	Not likely to adversely affect
Plants			
Autumn buttercup (*Ranunculus aestivalis acriformis*)	E	No	Not likely to adversely affect
Barneby reed-mustard (*Schoenocrambe barnebyi*)	E	No	Not likely to adversely affect
Blowout penstemon (*Penstemon haydenii*)	E	No	Not likely to adversely affect
Clay phacelia (*Phacelia argillacea*)	E	No	Not likely to adversely affect
Clay reed-mustard (*Schoenocrambe argillacea*)	T	No	Not likely to adversely affect
Desert yellowhead (*Yermo xanthocephalus*)	T	Yes	Not likely to adversely affect
Heliotrope milk-vetch (*Astragalus montii*)	T	Yes	Not likely to adversely affect
Howell's spectacular thelypody (*Thelypodium howelli ssp. spectabillis*)	T	No	Not likely to adversely affect
Jones cycladenia (*Cycladenia humilis var. jonesii*)	T	No	Not likely to adversely affect
Kodachrome bladderpod (*Lesquerella tumulosa*)	E	No	Not likely to adversely affect
Last chance townsendia (*Townsendia aprica*)	T	No	Not likely to adversely affect
San Rafael cactus (*Pediocactusdes depainii*)	E	No	Not likely to adversely affect
Shrubby reed-mustard (*Schoenocrambe suffrutescens*)	E	Yes	Not likely to adversely affect
Slender Orcutt grass (*Orcuttia tenuis*)	T	Yes	Not likely to adversely affect
Slickspot peppergrass (*Lepidium papilliferum*)	T	Yes	Not likely to adversely affect

[1] E – Endangered, T – Threatened, P – Proposed, EXPN – Experimental, Non-essential

Species	Status[1]	Critical Habitat?	Determination
Uinta Basin hookless cactus (*Sclerocactus wetlandicus*)	T	No	Not likely to adversely affect
Ute ladies'-tresses (*Spiranthes diluvialis*)	T	No	Not likely to adversely affect
Webber ivesia (*Ivesia webberi*)	T	Yes	Not likely to adversely affect
Western prairie fringed orchid (*Platanthera praeclara*)	T	No	Not likely to adversely affect
Wright fishhook cactus (*Sclerocactus wrightiae*)	E	No	Not likely to adversely affect
Whitebark pine (*Pinus albicaulis*)	T	No	Not likely to adversely affect

[1] E – Endangered, T – Threatened, P – Proposed, EXPN – Experimental, Non-essential

Attachment B. Utah Prairie Dog (*Cynomys parvidens*) Conservation Measures to be Implemented on BLM Lands in Conjunction with the 2025 GRSG RMPA.

In their 2015 Biological Assessment (BA; BLM 2015), the BLM committed to implementing the following conservation measures when planning and implementing management actions in areas where greater sage-grouse and Utah prairie dog habitat overlap. These conservation measures will continue to be implemented under the 2025 GRSG RMPA:

- Under the authority of BLM laws, regulations, and policies, where Utah prairie dog habitat overlaps with greater sage-grouse habitats, it is the intent of these land use plan amendments to co-manage for the benefit of both species. For example, when applying various management actions and objectives that are applicable specifically to greater sage-grouse but could affect Utah prairie dog habitat, landscapes would be managed for both species. Examples of some of these BLM management actions and objectives are included in over-arching management in GRSG habitat (e.g., Objective GRSG-3, MA-GRSG-4), vegetation management (e.g., Objective VEG-1, MA-VEG-1), and fire management (e.g., MA-FIRE-3, MA-FIRE-4).

- The BLM commits to include co-management language that will help guide planning and implementing management actions in areas where greater sage-grouse and Utah prairie dog habitat overlaps. This co-management language is included in the following Management Actions and Objectives in the final BA:

    - Objective GRSG-2
    - Objective GRSG-4
    - MA-GRSG-3
    - MA-GRSG-5
    - MA-VEG-4

    Co-management language will be included in the following Management Actions and Objectives in the BLM's Record of Decision:

    - Objective GRSG-3
    - MA-GRSG-4
    - MA-GRSG-6
    - Objective VEG-1
    - MA-VEG-1
    - MA-FIRE-3
    - MA-FIRE-4

- There is a suite of project-level conservation measures that will minimize impacts to Utah prairie dogs that are already in place in existing biological assessments, plans, policies, and regulations (see Attachment E *in* the BA). The following conservation measure from the BA for this proposed action describes this as follows:

- The original biological assessment impacts analysis included conservation measures from various existing land use plans and conservation measures from existing, site-specific projects, as well as their associated Section 7 consultations for Utah prairie dog. The conservation measures from the existing land use plans and land use plan Section 7 consultations have been more clearly identified in Attachment E of the BA. The conservation measures from the existing site-specific projects were illustrative of the types of site-specific conservation measures that may be used during implementation of Utah prairie dog conservation actions.

Literature Cited

Bureau of Land Management. 2015. Biological Assessment for the Utah Greater Sage-Grouse Land Use Plan Amendment and Final Environmental Impact Statement. May 20, 2015. 186 pp.

Appendix 10

BLM Adaptive Management Process

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Appendix 10. BLM Adaptive Management Process

The BLM will implement GRSG adaptive management in coordination with existing or future state-level interagency adaptive management teams and use the best available scientific information, including GRSG population status as determined by State GRSG authorities. Composed of knowledgeable BLM and State GRSG authorities and working groups, interagency adaptive management teams will provide GRSG habitat management information to the BLM authorized officers. The BLM will work with the appropriate agencies to inform and implement the most recent State adaptive management processes, consistent with the framework outlined in this appendix.[1]

Key elements of the GRSG adaptive management process set forth herein include (1) monitoring habitat conditions and population status (e.g., abundance and trends) analysis units, (2) establishing and routinely assessing thresholds for habitat conditions and population status indicating unanticipated GRSG habitat impacts, (3) conducting causal factor analyses (CFA) of thresholds that have been met, and (4) employing management decisions and actions in response to thresholds and CFAs.

10.1 Analysis Units

To accurately inform adaptive management, the status of GRSG habitat and populations will be monitored and thresholds assessed at a scientifically appropriate scale and within comparable spatial analysis units. The BLM will specify the spatial analysis unit, in coordination with State GRSG authorities, applied when implementing adaptive management. Some threshold assessments, CFAs, and adaptive management responses may need to extend beyond individual spatial analysis units to address large-scale unanticipated negative impacts to GRSG habitat.

10.2 Habitat Thresholds

Habitat Threshold Activation – The BLM's adaptive management process specifies habitat thresholds for negative changes to GRSG habitat condition. The BLM will routinely assess the following habitat thresholds, which may be revised by the BLM as warranted through appropriate additional decision-making with newly available scientific information, and will document data and rationale for activated thresholds:

1. A soft habitat threshold will be activated when more than 5% of the suitable habitat (as defined as areas capable of supporting sagebrush) of Priority Habitat Management Areas (PHMA) spatial analysis unit is lost during a given year (including losses to wildfire). Percent sagebrush loss will be calculated only on PHMA portions of a spatial analysis unit that may also contain other HMA designations (e.g., GHMA). Baselines for calculating sagebrush loss will be specified by the sagebrush base layer delineated with the most recent LandFire data (detailed in Appendix 3) available at publication of the Approved RMPA and ROD.
2. A hard habitat threshold will be activated when suitable habitat, as defined above, in PHMA within a spatial analysis unit decreases below 65% (Aldridge et al., 2008; Connelly et al., 2000).

[1] The Federal Land Policy and Management Act (FLPMA) requires the BLM, to "resolv[e], to the extent practical, inconsistencies between Federal and non-Federal Government plans," and achieve consistency with State and local plans to the maximum extent that the BLM finds to be consistent with the laws governing public lands. 43 USC 1712(c)(9). See also 43 CFR 1610.3-1.

3. A hard habitat threshold will also be activated when a soft habitat threshold occurs as calculated from baseline in 4 consecutive years (i.e., >5% decline in each of 4 consecutive years).
4. All habitat thresholds activated will be verified through ground-truthing as described in the "Causal Factor Analysis (CFA)" section below.

Habitat Threshold Deactivation – Habitat threshold deactivation will be determined by the BLM in coordination with State GRSG authorities, and state-level interagency adaptive management teams where occurring. Data and rationale for deactivating a threshold will be documented. Deactivating habitat thresholds will correspond to the following criteria:

1. Soft and hard habitat thresholds can be deactivated if the quantity of sagebrush vegetation communities within the affected spatial analysis unit recover to sagebrush conditions and/or habitat function existing prior to a habitat threshold being activated.
2. If a spatial analysis unit cannot be restored to original sagebrush conditions and/or habitat function due to ecological or disturbance limitations (e.g., intense wildfire-killed soil microfauna, dense anthropogenic activities, etc.), restoration and/or habitat enhancement in adjacent spatial analysis units can be considered to increase GRSG abundance in those areas. In these situations, habitat threshold deactivation occurs when regional GRSG abundance recovers as determined by State GRSG authorities to levels present prior to the threshold being activated.
3. If enhancing habitats in adjacent spatial analysis units does not deactivate a threshold, further assessment may be necessary to determine if the area in which the habitat threshold occurred should still be considered GRSG habitat.

10.3 POPULATION THRESHOLDS

Population Threshold Activation – Although BLM does not manage GRSG, GRSG population status can provide valuable information about habitat conditions on BLM-administered lands. In addition to habitat thresholds, the BLM's adaptive management process specifies population thresholds as indicators of potential habitat condition changes and unanticipated negative impacts to GRSG. States lead GRSG population data collection and determination of population status, often in coordination with state-level interagency adaptive management teams. Therefore, threshold activation will be determined in coordination among BLM, State GRSG authorities, and state-level interagency adaptive management teams where occurring. In addition, State GRSG authorities should alert the BLM any time an internal assessment identifies population status concerns warranting activation of population thresholds. The BLM will document data and rationale for activating population thresholds, including population status input and recommendations from State GRSG authorities.

Population Thresholds – The BLM will review population trend assessments provided by the States, annual Hierarchical Population Monitoring Framework (HPMF) results (when available, Coates et al. 2021 and subsequent updates or revisions), and other available scientific information to inform potential habitat concerns in PHMA. State GRSG authorities receive HPMF results in advance of public releases. Therefore, State GRSG authorities can provide the BLM with early alerts of both soft and hard population thresholds that may need a CFA (note: the BLM does not receive lek specific information from the HPMF).

To the extent the HPMF's Targeted Annual Warning System (TAWS) is consistent with State adaptive management processes and the best available science, and therefore utilized by the BLM, activation of the HPMF thresholds correspond to the following definitions:

1. Activation of a soft population threshold is equivalent to a TAWS "watch," which is defined as 2 consecutive years of population decline within a neighborhood cluster that is either different or more rapid than the associated climate cluster.
2. Activation of a hard population threshold is equivalent to a TAWS "warning," which is defined as 2 out of 3 (fast) or 3 out of 4 (slow) consecutive years of population decline within a neighborhood cluster that is either different or more rapid than the associated climate cluster.

HPMF Population Threshold Deactivation – Where applied, HPMF population threshold deactivation will be determined by the BLM in coordination with State GRSG authorities, and state-level interagency adaptive management teams where occurring. The BLM will document data and rationale for deactivating a population threshold. To the extent TAWS is consistent with State adaptive management processes and the best available science, and therefore utilized by the BLM, deactivating HPMF population thresholds will correspond to the following criteria:

1. The affected population's trend is no longer a "watch" or "warning" within a neighborhood cluster and realigns with the climate cluster's trend for 3 consecutive years; or
2. The affected population's abundance or growth rate are sufficient for recovery as determined by and with concurrence of State GRSG authorities; or
3. The BLM and State GRSG authorities determine threshold results were in error.

Population Threshold Verification – The BLM and State GRSG authorities will jointly verify each activated population threshold, preferably within 60 days, to assess if habitat factors may be influencing the suspected population threshold. If BLM and State GRSG authorities agree a threshold was activated in error, the BLM will document information substantiating the error and threshold deactivation as may be warranted. In the event of a disagreement, BLM and State GRSG authorities will coordinate to resolve the disagreement by further assessing and documenting potential threshold analysis errors. If a disagreement persists, the appropriate BLM State Director will collaborate with BLM State and National GRSG coordinators and local BLM field biologist, as needed, to evaluate threshold results and determine if a CFA is prudent. The BLM State Director will advise the State GRSG authorities of BLM's threshold verification conclusion.

10.4 CAUSAL FACTOR ANALYSIS (CFAS)

CFA Teams – CFA teams will identify factors causing thresholds to be activated and recommend adaptive management responses to deactivate thresholds. CFA team composition should minimally include the local BLM biologist, BLM State Sage-grouse Lead, and at least one representative from the State GRSG authorities. Additional subject matter experts, stakeholders with local knowledge, and other affected parties may be included on CFA teams as appropriate for site-specific analyses or as consistent with existing CFA team structures.

Formal CFA – The BLM, in coordination with the CFA team, will perform a CFA and prepare a report for each activated and verified habitat and population threshold. Formal CFAs will be performed for activated thresholds with one or more potential causal factors that are not obvious (in contrast to the Rapid Assessment CFA described below). CFAs will identify factors causing thresholds to be activated and recommend adaptive management responses to deactivate thresholds. Substantive disagreements about

causal factors will be noted in the CFA report along with the basis of the disagreements. CFAs and reports will be completed within 12 months from the threshold being activated. BLM will prepare a CFA report even if no causal factors are identified. Upon completion, CFA reports will be submitted to the appropriate local BLM manager, BLM State Sage-grouse Lead, BLM National GRSG Coordinator, State GRSG authorities, and CFA team. CFA reports will include, but not be limited to, the following information about the activated threshold and affected spatial analysis unit(s):

1. Descriptions of existing land uses.
2. Landownership patterns.
3. GRSG population trends.
4. Habitat conditions and trends.
5. Factor(s) causing the habitat and/or population declines and threshold activation.
6. Recommended management actions to address causal factors.
7. Data and expertise used to reach CFA conclusions.

Rapid Assessment CFA – A rapid assessment CFA can be performed instead of a formal CFA for activated thresholds with obvious causal factors (e.g., large wildfire or other discrete events). Rapid assessments may be conducted by the BLM or appropriate State GRSG authorities, or both, but results should be confirmed by all parties. Causal factors identified during a rapid assessment will be documented and reported to the appropriate local BLM manager, BLM State Sage-grouse Lead, BLM National GRSG Coordinator, State GRSG authorities, and CFA team. If a rapid assessment identifies no obvious causal factor, a formal CFA will be completed within 12 months of the threshold being activated.

10.5 PHMA ADAPTIVE MANAGEMENT RESPONSES

Threshold Responses – The BLM will implement adaptive management responses to address factors causing habitat or population threshold activation as specified in CFA reports and rapid assessment documentation. In accordance with applicable law and prior existing valid rights, the BLM may modify authorizations of existing activities and defer authorization of proposed new activities to avoid, minimize, or otherwise mitigate GRSG impacts on BLM-administered lands from causal factors. Through project-level analysis conducted under the National Environmental Policy Act (NEPA), the BLM will evaluate if a proposed new activity could contribute to an activated threshold or cause a future threshold activation. Implementing habitat improvement projects should also be considered if likely to reverse thresholds. The BLM will coordinate adaptive management responses with State GRSG authorities and state-level interagency adaptive management teams where occurring.

Spatial Scale and Monitoring – The BLM will target adaptive management responses at the spatial scale and within the spatial analysis unit at which a threshold is activated. However, a CFA team may recommend expanding the spatial extent of adaptive management analyses and recommended responses beyond individually activated spatial analysis units to address large-scale unanticipated negative impacts to GRSG habitat. Monitoring of the affected habitat or population (or both if appropriate) will be necessary to assess the efficacy of adaptive management responses for deactivating thresholds.

Non-BLM administered lands – CFAs and corresponding adaptive management responses should consider if threshold activation in PHMA is due to actions on non-BLM administered lands. If a threshold is activated from actions on adjacent non-BLM administered lands, the BLM can consider authorizing proposed new activities that will not negatively impact GRSG habitat or populations on BLM-administered lands or

contribute to indirect or cumulative impacts. The BLM may also consider additional adaptive management responses as needed to prevent further GRSG habitat impacts on BLM-administered lands. The BLM will document adaptive management determinations regarding non-BLM administered lands to address a threshold that has been activated due to activities that occurred on non-BLM-administered lands.

Thresholds – The BLM can consider authorizing proposed new activities during a CFA if the activities will cause no GRSG mortality or direct loss or degradation of occupied GRSG habitat. After completing the CFA, the BLM can consider activity authorizations and reauthorizations if similar activities were neither causal factors nor contributing factors of the activated threshold. Project-level NEPA will evaluate if authorizing a proposed new activity could cause a threshold to be sustained or reactivated.

Threshold Modification – If supported by local data, a CFA team can review and recommend modifying the activated threshold level, and corresponding adaptive management responses, from (1) soft-to-hard or (2) hard-to-soft. Threshold modifications must be supported by data and detailed in a written report that is approved by the BLM authorized officer in consultation with State GRSG authorities and local CFA team.

Exceptions to Threshold Responses – The BLM will coordinate with permittees and project proponents to reduce potential GRSG impacts from the following exceptions to adaptive management responses for activated thresholds:

1. Renewal of existing authorized activities that require an authorization if:
    a. The activity is scheduled within 60 days of when a threshold is identified and activated, and
    b. The permittee or project proponent can demonstrate significant negative economic impacts (e.g., documented loss of income equivalent to the income potential of the activity), and
    c. The renewal can only be considered if it does not result in known negative impacts to GRSG habitat or populations.
2. Activities essential for human health and safety in a current or likely catastrophic event (e.g., repair of dams, emergency vehicle access, emergency utility repairs). Note: routine maintenance and operations of electric utility ROWs may continue as outlined in 43 CFR 2801 and authorized ROW grants.
3. Emergency Stabilization and Rehabilitation activities for post-wildfire restoration.
4. A livestock grazing permit or lease to extend the current livestock grazing practice may be renewed, but only for the period/duration needed to complete the CFA. If livestock grazing is not determined as a causal factor to an activated threshold, the subsequent livestock grazing permit or lease renewal can proceed normally. If livestock grazing is identified as a causal factor to an activated threshold, the terms and conditions of the subsequent livestock grazing permit or lease will need to be examined through NEPA and potentially modified to reduce or eliminate negative habitat impacts.
5. Continuing the terms and conditions for livestock grazing when a permit or lease has expired or was terminated due to a livestock grazing preference transfer in accordance with Section 402(c)(2) of the Federal Land Policy and Management Act (FLPMA).

Inconclusive CFAs – If a CFA identifies no causal factor for an activated threshold, the BLM may consider additional project-level restrictions on existing or new activity authorizations within the spatial analysis unit of the activated threshold. The BLM will implement activity restrictions in coordination with permit holders and State GRSG authorities and in accordance with applicable law and prior existing valid rights. The BLM will document the biological rationale for restrictions. New authorizations must disclose that a threshold

has been activated and consider potential cumulative impacts on GRSG habitat and State-managed populations. In addition to activity restrictions, the BLM should implement habitat improvement projects to promote threshold deactivation. The BLM should monitor habitat conditions associated with inconclusive CFAs and document new information as a CFA report addendum or in annual adaptive management reports. CFAs not completed within 12 months will not be considered inconclusive and should be prioritized for completion.

Adaptive Management Response Removal – After corresponding thresholds are deactivated, the BLM will remove activity management actions, adjustments, or stipulations implemented as adaptive management responses on authorized activities, coordinated with permittees. BLM will also consider authorizing new proposed activities within associated spatial analysis units after thresholds are deactivated.

10.6 HABITAT THRESHOLDS DUE TO WILDFIRE

If wildfire causes habitat threshold activation, the BLM will coordinate with State GRSG authorities and assess actual wildfire impacts to GRSG habitat within the wildfire perimeter, including the extent of lost habitat, burn severity, and sagebrush mortality, except as defined in the Exceptions to Threshold Response above. The BLM will perform post-wildfire GRSG habitat assessments, which can include an initial rapid assessment CFA, in addition to a BLM Emergency Stabilization and Rehabilitation review that might also occur. If the GRSG habitat assessment concludes that wildfire severity permanently precludes habitat restoration, the BLM may perform additional assessments to determine if the wildfire-affected area should not be considered GRSG habitat. Post-wildfire GRSG habitat assessments and associated determinations will be documented and reported to the BLM State Director, BLM State Office Sage-grouse Lead, National BLM GRSG Coordinator, and State GRSG authorities.

The BLM will complete post-wildfire GRSG habitat assessments before the next growing season following the fire. Until a post-wildfire GRSG habitat assessment is completed, the BLM will authorize no new activities that could cause more GRSG habitat loss or degradation within PHMA portions of the wildfire-affected spatial analysis unit(s) where the habitat threshold is activated. The threshold will be deactivated if the assessment concludes that wildfire did not reduce the availability of habitat services (i.e., food, cover, water, and connectivity) necessary to support pre-wildfire GRSG abundance. State GRSG authorities will determine pre-wildfire GRSG abundance and participate in the assessment of wildfire effects on GRSG abundance and habitat services. If pre-wildfire GRSG abundances are not supported, the BLM may defer authorizing new activities in accordance with applicable law and prior existing valid rights until the threshold is deactivated and the wildfire-affected area again supports pre-wildfire GRSG abundances. The BLM may consider authorizing new activities prior to threshold deactivation only if the activity will neither directly nor indirectly impact the wildfire-affected GRSG populations, as determined in coordination with State GRSG authorities.

Appendix 11

Summary of Public Comments on the Proposed Changes Between Proposed RMPA and ROD

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Appendix 11. Summary of Public Comments on the Proposed Changes Between Proposed RMPA and ROD

Consistent with 43 CFR 1610.2(f)(5) and 1610.5-1(b), significant changes to the proposed management direction in the Proposed Resource Management Plan (RMP) Amendment were published for public comment on September 2, 2025, for a 30-day comment period, which ended on October 3, 2025. This was a narrow comment period focused specifically on five significant changes to management direction from what was published in the Proposed RMP Amendment on November 15, 2024. These changes included:

- Substantive edits to the adaptive management language in the Proposed RMPAs for Idaho, Montana/Dakotas, Nevada/California, Utah, and Wyoming to better align with state policies and programs to manage sage-grouse populations.
- Removal of the designation for Priority Habitat Management Areas (PHMA) with limited exceptions as a distinct subset of PHMAs to improve consistency with state and local plans.
- Changing the seasonal habitat benchmark for perennial grass height during nesting/early brood rearing from a quantitative standard to a qualitative standard in the Nevada/California and Idaho Proposed RMPAs.
- Updating the habitat management area boundaries for the Utah Proposed RMPA to more closely align with the State of Utah Greater Sage-Grouse Conservation Plan (2019).
- Changing the allocation for major rights of way in general habitat management areas (GHMA) in the Nevada Proposed RMPA from avoidance to open to align more closely with how GHMA is managed in BLM California.

The BLM received approximately 170 unique, substantive comments on these changes. Montana/Dakotas changes are limited to the first two items in the bulleted list above. Therefore, only comments pertinent to these changes are summarized below along with the BLM's responses.

11.1 Adaptive Management (General)

- **Comment Summary:** The BLM should update the RODs with language explaining how it will address inconsistencies between the adaptive management provisions in existing state plans and those described in the FEIS. The Proposed Changes document does not clarify how these inconsistencies will be resolved.

  Response: States have ownership over managing GRSG populations and therefore lead the collection of GRSG population monitoring data and determination of population status (e.g., increasing, decreasing, or stable). The States' population monitoring is important for informing effective GRSG habitat management on BLM-administered lands. The BLM coordinated extensively with the Western Governors' Association Sage-grouse Task Force (WGA SGTF) to draft the adaptive management approach in the proposed changes document, which is adopted in the Approved Amendment. Every state in the Task Force supports this management approach. Further, the BLM's adaptive management approach identifies the need for close coordination with states in implementing this framework, including the development of interagency teams to utilize best

available science to coordinate with state authorities on analysis units, population status, thresholds, causal factors, and responses. During implementation, the BLM encourages states to develop MOUs with their BLM state offices to address any potential points of concern and ensure consistency between State and BLM-managed lands.

- **Comment Summary:** Commenters provided specific adaptive management recommendations in tracked-change format within their letters.

  Response: The BLM carefully considered the proposed edits to adaptive management language and adopted them as appropriate.

11.2 ADAPTIVE MANAGEMENT- HABITAT THRESHOLDS

- **Comment Summary:** The BLM should clarify how habitat thresholds will be deactivated and how habitat threshold activation due to wildfire is addressed.

  Response: Threshold deactivation is discussed in the adaptive management appendix, *Habitat Threshold Deactivation.* During implementation, the BLM encourages states to develop MOUs with their BLM state offices to address implementation of this framework.

- **Comment Summary:** The BLM should consider routine and non-routine operations for utility operators when identifying threshold responses, as RODs do not have utility operations exemptions. RODs should include specific language that explicitly permits routine ROW maintenance, including service road access, as part of valid existing rights, regardless of threshold response status.

  Response: The BLM clarified in the adaptive management appendix, *Exceptions to Threshold Responses,* that ROW operations and routine maintenance may be an exception to threshold responses and will follow the regulations at 43 CFR 2801 and the terms of the ROW authorization.

11.3 ADAPTIVE MANAGEMENT- CAUSAL FACTOR ANALYSIS

- **Comment Summary:** Causal Factor Analysis has been misused to restrict other development activities, such as grazing allotments, and the Proposed Changes document fails to address this issue. Causal Factor Analysis should place greater emphasis on natural causes of habitat degradation, including predation and large wildfires. Commenters proposed specific text revisions in tracked-change format within their letters. (See Letter 149 from Eureka County, NV, and Letter 191 from Humboldt County, NV.)

  Response: The BLM coordinated extensively with the Western Governors' Association Sage-grouse Task Force (WGA SGTF) to draft the adaptive management approach in the proposed changes document, which is adopted in the Approved Amendment. The evaluation of causal factors includes consideration of how natural factors contribute to the degradation of sage-grouse habitat. As stated in the adaptive management appendix, *Causal Factor Analysis,* formal CFA reports will cover aspects such as habitat conditions, factors causing declines and threshold activation, and recommendations. In cases of large wildfires, a Rapid Assessment CFA can be prepared. Actions taken to implement the CFA recommendations by the BLM will require NEPA. In the case of grazing allotment based actions, the BLM will not take a management action related to grazing unless it is determined that grazing is the causal factor of the threshold being met. Grazing allotment renewal is also established as one of the exceptions to threshold responses, and allotments may be renewed

while a CFA is ongoing, which is clarified in the final adaptive management language. The evaluation of causal factors includes consideration of how natural factors contribute to the degradation of sage-grouse habitat. In addition, wildfire is further addressed in the adaptive management appendix, *Habitat Thresholds Due to Wildfire.*

- **Comment Summary:** When conducting Causal Factor Analysis, other sagebrush-obligate species, such as mule deer and pygmy rabbits, should also be considered as potential indicator species for sagebrush biomes.

  Response: The BLM will consider the best available information in completing a causal factor analysis. As stated in the adaptive management appendix, *Causal Factor Analysis,* the BLM will consider habitat conditions and trends, which may include all sagebrush-dependent species.

11.4 ADAPTIVE MANAGEMENT- TARGETED EARLY WARNING SYSTEM (TAWS) AND POPULATION THRESHOLDS

- **Comment Summary:** TAWS is an outdated system that is error-prone and fails to deliver adequate management outcomes. State agencies are better equipped to handle adaptive management and monitoring. The BLM should prioritize supporting state agencies and fostering greater collaboration between the BLM and state agencies.

  Response: TAWS is currently the best available science, developed in close coordination with all state agency biologists and the Western Association of Fish and Wildlife Agencies. The BLM will continue to evaluate the best available science when making management decisions for sage-grouse habitat. The BLM coordinated extensively with the Western Governors' Association Sage-grouse Task Force (WGA SGTF) to draft the adaptive management approach in the proposed changes document, which is adopted in the Approved Amendment. The revised Adaptive Management approach supports strong collaboration with state agencies and provides for verification of thresholds, see *Population Threshold Verification*.

- **Comment Summary:** Conversely, the BLM already employs adaptive management methods, including TAWS, which are informed by state agency data. However, the Proposed Changes document indicates that states may be granted authority to override BLM management actions, which would conflict with FLPMA.

  Response: The BLM is committed to close coordination with states in making management decisions for sage-grouse habitat and ensuring that information about sage-grouse populations is accurate. This does not mean that states may override the BLM's management actions on BLM-administered lands. The Adaptive Management Action states, "BLM will coordinate with State GRSG authorities regarding management decisions made in response to adaptive management thresholds and subsequent causal factor analyses and will make decisions for the management of BLM managed surface lands and mineral estate." This is further explained in the Adaptive Management Responses Section, specifically it explains the BLM will implement adaptive management responses.

- **Comment Summary:** The BLM should clarify how population thresholds are addressed.

  Response: The adaptive management appendix addresses population thresholds.

11.5 ADAPTIVE MANAGEMENT- STATE POLICIES AND PROGRAMS

- **Comment Summary:** The BLM should establish a process which would resolve discrepancies between state level plans that are not aligned with BLM's management actions, and the Proposed Changes document does not address these shortcomings.

  Response: During implementation, the BLM encourages states to develop MOUs with their BLM state offices to address any potential points of concern and ensure consistency between State and BLM-managed lands. Key elements of the BLM adaptive management approach are detailed in the appendix and can be used to assess the applicability of state level plans in meeting BLM management actions,

- **Comment Summary:** Adaptive Management relies heavily on cooperation between state agencies and BLM. BLM should support state agencies and maintain a working and cooperative relationship and ensure that state-led processes are fully integrated into federal decision-making.

  Response: States have ownership over managing GRSG populations and therefore lead the collection of GRSG population monitoring data and determination of population status (e.g., increasing, decreasing, or stable). The States' population monitoring is important for informing effective GRSG habitat management on BLM-administered lands. The BLM is committed to close coordination with states in making management decisions for sage-grouse habitat. Recall that the overall goal of this plan amendment effort as well as many objectives and management actions are explicit in about "coordination and cooperation with state wildlife agencies and appropriate state authorities." During implementation, the BLM encourages states to develop MOUs with their BLM state offices to address any potential points of concern and ensure consistency between State and BLM-managed lands.

11.6 ADEQUACY OF NEPA AND LUP COMPLIANCE

- **Comment Summary:** The BLM did not adhere to agency guidelines, NEPA requirements, or other federal laws when developing the FEIS or during the protest resolution process. The Proposed Changes document does not adequately address these shortcomings.

  Response: The BLM has complied with the requirements of NEPA, FLPMA, and its land use planning regulations in developing the approved RMP amendments.

- **Comment Summary:** The Proposed Changes document introduces significant changes to the FEIS that fall outside the scope of the original FEIS analysis and therefore require additional NEPA review. Specifically, the BLM failed to analyze the adaptive management approach in in the proposed changes document and that adaptive management approach fails to provide that project level NEPA for changes in management direction will occur. Furthermore, the limited scope of the Proposed Changes comment period did not provide an opportunity to seek clarification on these discrepancies.

  Response: The BLM has carefully reviewed each of the proposed changes to determine if they would result in significant effects outside the range of effects analyzed in the Proposed RMPA/Final Environmental Impact Statement (EIS). The BLM has determined that the analysis described in the Proposed RMPA/Final EIS is inclusive of the effects that would occur because of these changed management actions and supplemental analysis under the National Environmental Policy Act is not needed. Specifically, the proposed adaptive management approach for Idaho, Montana/Dakotas,

Nevada/ California and Utah is within the spectrum of alternatives analyzed in the FEIS. The BLM analyzed the proposed adaptive management approach for WY in Alternative 2 of the FEIS. The BLM will also comply with NEPA as appropriate during implementation of the adaptive management approach, as explained in the Adaptive Management Response Section of the Adaptive Management Appendix.

Moreover, consistent with the BLM's planning regulations (43 CFR 1610.5-1; 43 CFR 1610.2) the BLM provided a 30-day public comment period for the public to comment on significant changes to the proposed amendment that was previously issued in November 2024. In the proposed changes document available to the public, the BLM identified changes and provided an explanation for the changes- including a description of the governor's concerns with the proposed adaptive management approach. The BLM also provided specific changes in management direction associated with the elimination of PHMA with limited exceptions in Table 1 and provided state-specific maps identifying areas where PHMA with limited exceptions is removed to allow the public to compare the proposed changes to those issued in the November 2024 proposed amendment.

11.7 Priority Habitat Management Area and Areas of Critical Environmental Concern

- **Comment Summary:** PHMA with Limited Exceptions was developed as a mechanism to provide protection for GRSG without formally designating ACECs. By removing PHMA with Limited Exceptions, the BLM loses the ability to designate protected habitat for GRSG. Therefore, the BLM should consider either designating additional ACECs or maintaining PHMA with Limited Exceptions.

  Response: The BLM considered areas for potential designation as Areas of Critical Environmental ACECs for GRSG habitat in this land use planning process. These areas were first identified through both external nominations and internal rangewide and state-specific review processes that were subsequently thoroughly evaluated by BLM to determine if they met the ACEC relevance and importance criteria identified in 43 CFR 1610.7-2 (refer to Appendix 5, Areas of Critical Environmental Concern for Greater Sage-Grouse Habitat, in the Final EIS). Specifically, in the EIS for this RMP Amendment, in compliance with 43 CFR 1617.7-2 and ACEC policy, the BLM has evaluated the area found to have relevance and importance and proposed the area for ACEC designation in the Alternatives. The BLM has also analyzed the effects of the management direction to the potential ACEC area under all of the alternatives, including the Proposed RMP Amendment.

  Following the Proposed RMP Amendment, several states informed the BLM that they found the identification of and additional protections in the PHMA with limited exceptions to be unnecessary, potentially inconsistent with state and local plans, policies, or programs (including because those states thought there could be confusion as to whether there would be two or three habitat management area designations), and a primary reason the states could not support the Proposed RMP Amendment. In consideration of the states' concerns related to the PHMA areas with limited exceptions, and in order to allow the BLM and the states to move forward together, the BLM has removed the PHMA with limited exception areas in the Approved RMP Amendment.

  The BLM evaluated areas proposed for designation as ACECs, and as explained in the ROD, determined the management direction in the approved amendment will provide protection to the relevant and important values of the potential ACEC area thus designation as an ACEC is not necessary.

- **Comment Summary:** The BLM should categorically exclude both wind and utility-scale solar development from PHMA as described in PHMA with limited exceptions, without relying on micro-siting as a form of mitigation. Distributed or co-located solar projects could be considered in non-habitat areas; however, utility-scale projects are incompatible with sage-grouse conservation in core habitats.

  Response: The BLM has carefully considered how to balance multiple uses in the planning area. Utility scale wind and solar are excluded from PHMA, with narrow exception criteria designed to protect sage-grouse habitat from direct and indirect impacts.